

THE SCOPE AND NATURE OF SEXUALITY EDUCATION  
IN FLORIDA PUBLIC HIGH SCHOOLS

BY  
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A DISSERTATION PRESENTED TO THE GRADUATE SCHOOL  
OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR THE DEGREE OF  
DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

1997

## ACKNOWLEDGMENTS

I would like to sincerely thank all those who were instrumental in helping me achieve this lifelong goal—earning my doctoral philosophy degree. My committee chair, Barbara Skowron, has been a true mentor. She willingly offered her professional guidance and was committed to ensuring my education was a valuable learning experience. My committee members, David Miller, Morgan Perry, and Sandra Seymour, provided professional guidance, encouragement, and a supportive environment for this learning experience.

My parents, Lawrence and Veronica Johnson, provided me with a life full of love and support, always believing that I could accomplish anything.

Forever, I would like to thank my husband, Paul Johnson, who provided without everything he could throughout this experience—his unconditional love, support, patience, and understanding—were countless with cheering, cooking, and proofing! I am truly fortunate to have married the wonderful human being, my best friend.

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Abstract of Dissertation Presented to the Graduate School  
of the University of Florida in Partial Fulfillment of the  
Requirements for the Degree of Doctor of Philosophy

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By

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May 1997

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Major Department: Health and Human Performance (Health Science Education)

The status of comprehensive school-based sexuality education in the U.S. was examined in a review of the literature. Although research demonstrates these programs are needed, have proven effective and are supported at local and state levels, there is relatively little known about classroom implementation of sexuality education. This study was undertaken to provide a comprehensive and current assessment of the status of sexuality education in Florida public high schools. The components assessed included the scope of sexuality education topics, the extent of STD/HIV and pregnancy prevention information, the teaching methods and skills building activities utilized, time spent on the whole unit, as well as individual topics within it, and teacher, school, and district variables that may have effected implementation. Also, as sexuality education is mandated in Florida, results were used to help determine compliance. The survey was

developed using three established instruments. It was sent to 500 health and family and consumer science teachers, yielding a 56% response rate. Results found that the majority of respondents were teaching sexuality education and thought it was the appropriate role of the school to do so. Most teachers viewed a variety of important sexuality education topics. However, there were problems apparent with both the content and context of the sexuality education provided. There appeared to be a focus on the negative consequences of sexual activity and not enough emphasis on skills building necessary to help middle students make responsible decisions and avoid STDs/HIV and unwanted pregnancy. There are many factors that affect the implementation of sexuality education, some of which are beyond the classroom teacher's control. The factors that appeared to have the biggest impact on what was taught included teacher attitudes and views of the class as required or elective. In order to improve sexuality education in Florida schools, teacher training, provision of adequate teaching materials, increased time in the curriculum, and increased support from the state, district and schools are needed. These issues and recommendations are addressed.

## CHAPTER 1 INTRODUCTION

The negative consequences of risky sexual behavior among adolescents are well known in the United States today. Over half (51%) of all high school students have had intercourse in their lifetime (Kane et al., 1994), with the average age at first intercourse just under 15 years (Green Talk, 1994). There are one million adolescent female pregnancies each year in the U.S. (Florencia deVos Scott, 1989), one of the highest rates of any western industrialized country (Karby et al., 1994). Teenagers have the highest rate of sexually transmitted disease (STD) among sexually active people of any age group (U.S. Department of Health and Human Services (DHHS), 1990). Of the individuals diagnosed with AIDS approximately one in five are in their twenties. This is significant as the incubation period is about 10 years; meaning most were probably infected as adolescents (Centers for Disease Control and Prevention (CDC), 1991).

The impact of these negative consequences of risky adolescent sexual behavior is far reaching. The social and economic, educational of teen parents, as well as the health of their infants, are compromised (Pined, Moore, Montano, Haines, & Myers, 1992). STD's and other STD's can affect the physical health, child bearing abilities, and even the lifespan of young adults. AIDS has become one of the leading causes of death among men and women ages 21 to 44 in the U.S. (Karby et al., 1994).

One way to help decrease the prevalence of negative consequences associated with early sexual behavior and to promote healthy sexuality is by providing a effective sexuality education. Professionals agree that sexuality education is best offered through a comprehensive, skill-based approach, and linked with comprehensive prevention (Sexuality Information and Education Council of the U.S. (SIECUS), 1992). This approach includes components that target cognitive, affective, and skill domains at all school grade levels, and are included as part of a comprehensive school health education program. A broad range of topics should be included as well (Yabari, 1994). Many use sexuality education as a solution to the high incidence of adolescent pregnancies and HIV/STDs. Moreover, promoting a positive view of sexuality is also important (Yabari, 1994).

There is strong support for school-based sexuality education among parents, national organizations, government, and educators. Ninety percent of parents want their children to receive sexuality education. Over 80% of them want their child to be taught about "safe sex" as a means of preventing HIV/AIDS (Lewin Harris & Associates, 1993; 1994; Gallup and Clark, 1997). Over 60 national organizations contend that all children and youth should receive comprehensive school-based sexuality education (SIECUS, 1992). The number of states supporting sexuality education through the development of supported or mandated guidelines has increased to 43 (Gentilell & Hoffman, 1999). Sixty-eight percent of large districts require sexuality education and 80% require AIDS education (Kinsey Graduate & Brown, 1999).

Government support of school health education, and more specifically sexuality education, is evident in that these programs are essential to achieving the Healthy People



2000 objectives (2003B, 1995). These objectives serve as a challenge for the level of health that the American society should seek to achieve. Several of the 21 priority areas directly address adolescent sexuality issues, such as Family Planning, HIV infection, and STDs. Support for school-based sexuality education is also apparent from a practical perspective. Most students attend school before they initiate sexual risk-taking behavior and a majority are enrolled when they initiate sexual activity. Hence, many see schools as public institutions with great opportunity and responsibility in addressing and reducing sexual risk-taking behaviors (Korby et al., 1994).

School-based sexuality education programs have proven effective. They have been shown to go beyond increasing knowledge about sexual issues, to actually delay initiation of intercourse, reduce the frequency of intercourse, reduce the number of sexual partners, or increase the use of condoms or other contraceptives. These programs have the potential to reduce unintended pregnancies, and rates of sexually transmitted diseases and HIV (Korby et al., 1994).

Hence, it is evident school-based sexuality education programs can prove effective, and that there is both a need for and support for them. Research needs to document the current status of these programs. Then, that data can be used to help improve sexuality education for our nation's adolescents.

### Statement of Research Problem

It is evident school-based sexuality education programs can prove effective, and that there is both a need for and support for them. However, little is known about what is

taught at the classroom level. Research needs to document the current status of these programs. Thus, this data can be used to help improve sexuality education for adolescents. This study assessed the scope and nature of sexuality education in Florida public high schools. Information was collected on the scope of sexuality concepts, the nature of the pregnancy and HIV/STD prevention information, the teaching methods and skills-building activities utilized, the time spent on the whole and as well as individual concepts and teacher/ school/ and district factors that may have affected implementation of school-based sexuality education.

### ***Purpose of the Study***

The purpose of this study was to assess the scope and nature of sexuality education in Florida public high schools. It provided baseline data on the scope of sexuality education topics, the nature of STD/HIV and pregnancy prevention information, the teaching methods and skills building activities utilized, time spent on the whole and as well as sub-related topics within it, and teacher/ school, and district variables that affected implementation. Also, as Florida mandates sexuality education, results were used to help determine compliance. In addition to providing valuable baseline data, this information could be used to help improve school-based sexuality education and suggest for those teaching it.

### Motiv for Sex Study

Although research has shown that much support exists for school-based sexuality education at the state, district, and local levels—by teachers, parents, and students themselves—little is known about actual classroom implementation, the extent to which instruction complies with state and district policies (Kanerwin, 1997). Policy adoption does not always result in effective program training. Few studies have directly surveyed teachers responsible for sexuality education. These studies have been conducted at both the state and national level, however, the components of school-based sexuality education assessed, the characteristics of the teacher, and the individuals surveyed varied. This section reviews classroom implementation of school-based sexuality education, the status of sexuality education in Florida, and other factors important to the implementation of school-based sexuality education.

### Classroom Implementation of Sexuality Education

Over the past fifteen years, several studies have been conducted at the national and state level to assess classroom implementation of sexuality education. The national studies were reported by Orr (1982), Remondino and Palmerin (1984), Lucas (Harris and Associates) (1986), Forrest and Silverman (1986), and Collins et al. (1987). The state studies include Kohlman and Woods (1984), Murawski (1986), Coleman (1990), Finnson (1994), and Yuhon, Torkis and Ralston (in press). There were a variety of research methodologies used, as well as criteria for assessing the sexuality education.

This research has evolved over the years, as have sexuality education programs, to encompass a more comprehensive curricula.

The research methodology used included secondary analyses of data, surveys and case studies. The respondents included random samples of students (Lewin Harris, 1988) or teachers (Coffman et al., 1994; Fierstein, 1994; Fergus & Silverman, 1998; Yabon, Turok, & Hoffman, *in press*), one teacher from each school (Ory, 1982), head teachers (Columbo, 1996), principals, superintendents, or a combination of these (Kobrinsky & Weeks, 1994; Menden, 1986; Sussman & Patten, 1986). Obviously data collected from those not actually teaching, as well as from head teachers who were more involved, might have resulted in an inaccurate portrayal of what was actually being taught.

The sexuality concepts assessed also varied. Most studies included a variety of general sexuality education topics (Fierstein, 1994; Kobrinsky & Weeks, 1994; Lewin Harris, 1986; Menden, 1986; Ory, 1982; Sussman & Patten, 1984). One program assessed information related to the prevention of STDs/HIV and pregnancy (Fergus & Silverman, 1998). Another looked at educational objectives emphasized by the curricula (Columbo, 1996). More specific messages related to some sexuality concepts were the main focus of another study (Coffman et al., 1994). The most recent of these studies used the SHECUS Guidelines for Comprehensive Sexuality Education to assess the scope of concepts taught (Yabon, Turok, & Hoffman, *in press*).

With the variation in these studies, it is hard to provide a accurate assessment of the status of sexuality education. However, based on these studies it appears that the most basic sexuality information is provided from the most basic curricula and

concerns's topics. These topics include those such as STD/HIV, sexual anatomy and physiology, sexual development, pregnancy, and birth responsible behavior, and decision-making. Topics generally considered controversial have consistently been absent from these topics. These topics include masturbation, homosexuality, and sexual behavior. Other topics such as abortion, birth control, rape and sexual and condoms seem to fluctuate how consistently they are taught. This may be due in part to the variety of approaches that have been used to assess similar concepts. For example, a survey might have asked whether teachers suggested condoms for STD/HIV protection, explained how to use them, actually demonstrated correct use, or told students where to get them.

Results from these studies seem to show similar conclusions – a basic level of sexuality education is provided, but it is not at a level where it could or should be. Bennett and Pomeroy (1994) found a positive relation to school districts' provision of sexuality education. They reported that many provided sexuality education, but the district offered no depth and barely coverage of important topics. Louis Harris (1993) concluded that only 15% of areas achieved what they considered to be comprehensive sexuality education. Furton and Silverman (1995) indicated that teachers formed more on helping adolescents avoid pregnancy and STD/HIV than on the full range of sexuality education. Fineman (1994) reported that although almost all students were exposed to sexuality education, the school curriculum provided did not correspond with profiles of sexuality education programs that have been most successful. Most recently, Collins et al. (1995) reported that although many teachers included sexuality education topics, increased

coverage of positive health issues for youth including pregnancy prevention and STD prevention was necessary to strengthen school health education in the future.

Overall, it appears a base-level of sexuality education concepts have been provided in classes, although studies are more consistent with that found in programs proven effective. Further assessment using updated and comprehensive measures of sexuality education are necessary to better understand the status of school-based sexuality education and the impact of state and district guidelines/statutes. Ultimately, improvements in both the scope and nature of sexuality education concepts taught are necessary to have an impact on students' knowledge, attitudes, and behaviors.

### The Status of School-based Sexuality Education in Florida

Since 1995, Florida has required comprehensive health education for students as kindergarten through twelfth grade. In 1983, the Florida legislature mandated AIDS education in middle and high schools. In 1990, age-appropriate human sexuality education for grades kindergarten through twelve was added as a component of Florida's comprehensive health education law. In 1991, the School Improvement and Accountability Act passed by the Florida legislature retained education decision-making to its districts (Hagood, 1994).

The Red Ribbon Fund on AIDS was convened by governor Chiles in 1992 to develop specific recommendations on ways to improve the state's HIV/AIDS education and prevention programs. The panel reported that health education, including AIDS education, was inconsistent and of varying quality around the state, as well as subject to

local politics (Ragotz, 1994). Horner et al. (1994) Florida's Department of Education (DOE) and Health and Rehabilitative Services (HRS) issued the *Report of the HIV/AIDS Prevention and Human Sexuality Education Task Force: Components of Quality HIV/AIDS Prevention and Human Sexuality Education (Components)*. This report was an overview Florida school districts in implementing quality comprehensive sexuality-HIV education. (Ragotz, 1994).

A 1995 study by SEDUS reviewed state-education agency (SEA) HIV/AIDS prevention and sexuality education programs. They reported that in Florida SEA, mandated all school districts implemented sexuality education, even though no state agencies monitored its implementation. Although Florida did not require licensing or certification of sexuality education teachers, it did encourage and provide training opportunities. There was no state initiative to develop, review, or recommend materials to be taught at various grade levels, however, according to SEDUS, teachers had such resources in place. SEDUS recommended improving licensing and certification of sexuality education teachers and the development of a state-level agency (Chantrell & Paterson, 1993).

#### Other Factors in the Implementation of School-based Sexuality Education

State and district support of school-based sexuality education through guidelines/mandates and the comprehensive nature of sexuality-related concepts taught are important factors in the provision of sexuality education. However, there are other factors that affect the delivery of these concepts. Appropriate teaching materials need to

be available and current. Teaching methods and skills-building activities need to target all learning domains so that students are able to process and actually use the information learned. The time spent on teaching secondary education needs to be sufficient enough to allow coverage of all topics as well as time for synthesizing and practicing related skills. Training and certification of teachers are necessary not only to maintain knowledge, but also connect levels with subject matter and increase likelihood of teaching it. Finally, positive attitudes toward teaching secondary education are also important in determining how and whether secondary related concepts are covered.

Materials. Teachers have reported the availability, use, and appropriability of resource materials as major sources of their feelings of inadequate preparation (Gardner & Hamilton, 1983). Many states and districts have developed guidelines and/or curricula (Gardner & Hamilton, 1983/84); however, individual districts and schools have made decisions on ways of implementing them. Many teachers reported they developed their own materials and 81% responded they needed more assistance (Demerouti, 1989).

Teaching methods and skills-building activities. Secondary education tends to target the cognitive, affective, and behavioral domains in order to be effective (National Guidelines Task Force, 1981). However, this is rarely the case at the state or district level. Only four states provided adequate coverage of these three learning domains in their secondary education guidelines (Gardner & Fawcett, 1995). Personal skills were minimally presented in state curricula and guidelines were too simplistic and did not include instruction on skills (Gardner & Hamilton, 1983/84). At the district level,



initiative is often reported to be teacher initiated and leading in skills building activities (Colombia: 1990; Farnham, 1994; Haignon, Collins, Bosley, & Lopez, 1996).

Thus, ideally comprehensive sexuality education takes place within health education programs from through seventh grade (Gutkins, 1997). The issue of the importance that quality comprehensive health education programs, which include HIV/AIDS prevention as a component, are at least 90 hours in length at each grade level and taught by trained health educators (Lopez, 1994). Even though the majority of southern food sexuality education should be given high priority, it is generally agreed that not enough resources devoted to it (Bill Papp & Kemp, 1993). Insufficient time in the curriculum was reported as the major weakness in our ELDHIV demands (Colombia: 1990). Almost one-third (18%) of teachers in a national study reported lack of time was one of the three greatest problems they faced in teaching sexuality education (Farnham & Silverman, 1998), and it was ranked second of eight issues that made it difficult to teach sexuality education in schools (Lopez et al., 1994).

**Teacher/Classroom.** If sexuality education programs are to prove effective, teachers need professional training on how to teach these subjects (Rutingswa, Young, Rudio, Aronson, & Ballant, 1995/96). Much research has been shown to increase knowledge, perceptions of importance of teaching the curriculum, extent to teach, and level of comfort with the course content (Lewinsohn-Dugan & Hamilton, 1999). Higher levels of teacher expertise and effective teacher perceptions of adequate preparation and knowledge level have been significantly associated with student perceptions of course content, on their knowledge, attitudes, and unobserved personal behaviors.

(Hamilton & Grogan, 1991). However, teachers often do not have the skills, knowledge, or inclination to teach sexuality education content (Rodríguez et al., 1999-01). A national study found 80% of teachers needed formal information, teaching materials, or teaching strategies regarding pregnancy and STD/HIV prevention (Foreman & Schwartz, 1996). The preparation of those teaching health, including sexuality education is a significant concern (Collins et al., 1993).

State-level requirements for teacher training and certification in sexuality education are rare based on several assessments of guidelines evaluated during the past decade (Kerny, Gortado, & Brown, 1999; Gortado & Haller, 1993; Gortado & Haller, 1993/94, and Gortado & Pizarro, 1995). According to the latest state survey (SIECUS, 1993) neither Texas, D.C., and Puerto Rico required teacher certification for teachers of sexuality education. Only six states and Puerto Rico required teacher training in order to teach sexuality education (SIECUS, 1993). These requirements are more common at the district level. Over half (54%) of districts required sexuality or AIDS education teachers to be certified. Fifty-one percent of districts required training for teachers of sexuality education (Kerny, Gortado, & Brown, 1999). As noted previously, an assessment by SIECUS (1995) found that Florida did not require training or certification of teachers.

*Analysis.* A national study found that the majority of teachers are teaching sexuality education and think it is important to do so. They expressed some fears—birth control, AIDS, STDs, sexual-decision making, abstinence, and homosexuality—should be taught rather than stay out (Dunneley, 1999). Few studies have been conducted on the

effect of teacher attitudes and concerns on use of sex education. (Gargus & Hamilton

1987), but generally they indicate that the attitudes and concerns are significantly related to the nature of the instruction provided (Forsen & Silverman, 1989; Lowness, Gargus & Hamilton, 1989; Yaber & McCabe, 1981; Yaber, Tinsley & Haller, in press).

Important teacher attitudes and concerns have been identified such as comfort presenting cognitive information and leading value-laden discussions, and perceived adequacy of preparation, which are modifiable by training and experience. These attitudes and concerns are directly reflected in teachers' sexual knowledge, attitudes, and perceptions of the effects of a sexuality education course on their future behavior, and their assessment of teacher performance and classroom environment (Gargus & Gargus, 1982). Teacher attitudes regarding whether a sexuality topic should be included in the curriculum (Or, 1982) and regarding the importance of the topic (Yaber, Tinsley & Haller, in press) have been found to be significantly related to the inclusion of the topic.

## Conclusion

Although the nature and depth of studies assessing sexuality education have varied greatly, it appears the majority of schools are providing a base-level of sexuality education for students. However, much work remains. Content-related topics and those pertinent to the transmission of STDs/HIV and unwanted pregnancy are often neglected and not presented in a manner conducive to affecting behavior. Also, these systems of sex

emphasis on avoiding the negative consequences of risky sexual activity rather than on promoting healthy sexuality.

In addition to the content, other factors related to implementation need to be addressed. Current and appropriate teaching materials need to be made available. More time needs to be allotted in the curriculum to ensure thorough coverage of topics and time for skills building activities. Finally, teacher training can help improve knowledge levels, beliefs of conduct, teacher effectiveness, and attitudes toward teaching sexuality education.

This study helped provide a more comprehensive and current assessment of the scope and nature of sexuality education in Florida, a state that mandates it. Florida was also used to help determine compliance with the state guidelines for sexuality education. The teacher, school, and district + troubles assessed provided an overview of areas requiring improvement if the status of sexuality education is to progress. Although it is difficult to provide an exact assessment of what is being taught at the classroom level, the goal of the study was to present a more comprehensive view of, and ultimately to help improve the status of school-based sexuality education.

### **Participants**

1. Participants were selected from a Florida DOE list of public school teachers by primary teaching responsibility. Teachers with health as a primary teaching code (N = 199) and a random sample of 18% (N = 361) of teachers with family and

consumer science (formerly called home economics) is a primary teaching field (94-873) were chosen.

1. Data were collected in Spring 1998.
2. Components of "Sex Education in the United States" by The Alan Guttmacher Institute (1988), "Survey of School Sexuality Education" by Drs. William Farber and Mohammad Torabi (1994), and the Sexuality Education Curriculum, The Curriculum Guide by Catherine Faxon Decker and Wilson (1994) were modified and combined to shape the scope and nature of sexuality education in Florida public high schools.

### Limitations

1. Subjects may not have represented the population of Florida sexuality education teachers adequately.
2. The time frame for data collection may have influenced responses.
3. Findings depended on the ability of a combination of modified components of "Sex Education in the United States," "Survey of School Sexuality Education," and Sexuality Education Curriculum, The Curriculum Guide to accurately assess the scope and nature of sexuality education in Florida public high schools.

### Assumptions

1. The sample adequately represented the population of Florida public high school sexuality education teachers.

2. The data collected in Spring 1996 was adequate for the purpose of the study
3. The modified surveys by The Alan Guttmacher Institute, Farber and Tabor, and Doherty et al. were adequate to obtain data necessary for the study
4. Subject motivation and number were adequate for the purpose of the study

### **Research Questions**

1. What was the scope of sexuality education offered in Florida public schools in the 8 - 12 grade?
2. Was the scope consistent with the Florida DCF's Guidelines: *Components of Desired HIV/STD Prevention and Related Knowledge, Attitudes?*
3. What was the nature of information provided in sexuality education that was intended to prevent unwanted pregnancy and STDs/HIV?
4. How was sexuality education being implemented in individual schools and school districts?
5. Were teacher attitudes related to the implementation of comprehensive sexuality education?
6. Were any school district variables related to the implementation of comprehensive sexuality education?

### Definitions of Terms

Alan Guttmacher Institute - This is an independent corporation for research, policy analysis, and public education in the field of reproductive health. They gather, analyze and report statistical data relating to family planning and fertility control.

### Committee of Quality RFP/STD Prevention and Human Sexuality Education

Committee - This report was developed by the Florida RFP/STD prevention and human sexuality task force. It was a joint project by the Department of Health and Rehabilitative Services and the Florida Department of Education, sponsored by the Centers for Disease Control and Prevention's Division of Adolescent and School Health. The purpose of it was to provide instructional guidelines for Florida school districts on RFP/AIDS prevention and sexuality education within the context of the DOE's initiative in state-level decision-making and accountability.

Florida Department of Education (DOE) - The Florida DOE is an agency committed to the delivery of quality services to the state's education system. The mission of Florida's public education system is to provide the opportunity for all Floridians to attain the knowledge and skills necessary for lifelong learning and to become self-sufficient, contributing members of society.

Guidelines for Comprehensive Sexuality Education (Guidelines) - These guidelines were developed by a task force of health, education, and sexuality professionals to

1990). They formulated the broad concepts and sub-concepts necessary for comprehensive sexuality education. Each concept includes life behaviors and developmental messages as well. The *Guidelines* provide an organizational framework for human sexuality and family living within four developmental levels, grades kindergarten through twelve. They use six main concepts, human development, relationships, personal skills, sexual behaviors, sexual health, and society and culture, encompassing 34 topics.

**Sex Education in the United States** - This instrument was developed for the Alan Guttmacher Institute and used in a 1982 survey:

"The survey questionnaire was developed through personal consultation with sex education researchers and education operations. Preliminary work also included four focus-group discussions with sex educators from public secondary schools in the Northeast and a pilot survey of 300 randomly sampled public school teachers. 40 items each of the five questions served as the survey. All survey respondents were asked questions about themselves and their schools, and about their views as to whether or not sex education should be taught and what topics should be covered at each grade levels. Respondents currently providing sex education were asked more detailed questions" (Forrest & Schwabman, 1989, p. 64).

**Sexual Education** - For purposes of this study, sexual education is defined as any instruction that includes some discussion about human sexual development, the process of reproduction, and/or the exploration of interpersonal relationships and sexual behavior. Examples of topics that might be covered are: male and female reproductive systems, dating relationships, abstinence, contraception, sexually transmitted diseases (STDs), HIV/AIDS, changes at puberty, pregnancy and childbirth, and sexual decision-making.



**Sexuality Information and Education Council of the United States (SIECUS)** - SIECUS is a professional organization that promotes and affirms the concept of human sexuality as natural and healthy part of living. They develop, collect, and disseminate information, promote comprehensive sexuality education, and advocate the right of individuals to make responsible sexual choices.

**Survey of School Sexuality Education** - This self-report questionnaire was developed by Drs. William Taylor and Mohammad Iqbal and administered to teachers as a 1998 survey. The survey consisted three sections: 1) a list of 16 sexuality education topics about which the respondents were asked to indicate whether the topic was included in the sexuality education unit in teacher class and to indicate teacher view about the degree of importance of each topic as part of comprehensive sexuality education; 2) two statements designed to measure attitude-related constructs of the respondents; and 3) questions dealing with demographic characteristics of the respondents, the respondent's view of support for sexuality education in teacher classes, and self-rated characteristics of the health classes and sexuality education taught by the respondent. Only the component measuring whether the 16 topics were taught and teacher ratings of importance were used in the current research. These 16 topics were based on SIECUS's *Guidelines for Comprehensive Sexuality Education* (1983) described above.

**Sexuality Education Curriculum: The Connection Guide** - This guide was written by Catherine Peters, Daniel, and Rebecca in 1994. It was developed as an effort to meet

teachers, program planners, and administrators in determining whether published sexuality education curricula meet the school district's needs. The guide identifies key evaluators of curricula including content, philosophy, skills-building strategies, and teaching methods. The skills-building and teaching strategies sub-sets were used for the research. The skills-building strategies sub-set was created based on specific personal and interpersonal skills deemed necessary for healthy sexuality. These have been identified by the SHCUSH Guidelines for Comprehensive Sexuality and through evaluation of prevention programs over the past twenty years. The teaching strategies sub-set compiled a variety of teaching methods necessary to meet individual learning styles and to provide opportunities for personal and social skills building.

## CHAPTER 2 REVIEW OF THE LITERATURE

### Introduction

The negative consequences of early sexual behavior among adolescents are well known in the United States today. Over half (51%) of all high school students have had sexual intercourse, with more than one third (32%) having had intercourse in the last twelve months preceding the survey (Kane et al., 1996). The average age at first intercourse is just under 15 years. The average number of sexual partners is 2.3, with one-fifth of those having four or more partners (Furman Tell, 1994). The pregnancy rate for women aged 15-19 is about 115 per 1,000 per year (Henshaw & Van Vorst, 1999), most of them being unintended (Downs, 1998). This results in one million adolescent female pregnancies each year (Henshaw & Van Vorst, 1999), one of the highest rates of any western industrialized country (Early et al., 1994). Approximately 470,000 of these result in fetal, 430,000 in abortion, and the rest in miscarriage or stillbirth (Henshaw & Van Vorst, 1999). In 1993, 11.4% percent of students reported they had been pregnant or gotten someone pregnant (Kane et al., 1996).

Teenagers have the highest rate of sexually transmitted disease (STD) among sexually active people of any age group (DHHS, 1998). Three million were are infected with STDs every year (McCauley, 1999). Of the individuals diagnosed with AIDS, approximately one-third are in their twenties. This is significant in the evaluation

posed is about 10%, an amount that was probably inflated as adolescents STD prevalence (10%)

The impact of these negative consequences of early adolescent sexual behavior is substantial. It ranges from reduced educational attainment and economic achievement and marital stability and marital dependence on males. The children of these young parents are at increased risk for poor health, reduced cognitive development, behavior problems, and poor school performance (Mack et al., 1992). HIV and other STDs complicate the physical health childbearing abilities, and in the lifespan of young adults. AIDS has become one of the leading causes of death among men and women ages 25 to 44 in the U.S. (Keller et al., 1994).

This study was undertaken to provide a more comprehensive and updated assessment of the status of school-based sexuality education in Florida, a state that mandates comprehensive sexuality education for grades 6-12. The components assessed included the scope of curricula, education topics, the nature of skill training and program, program implementation, the teaching methods and skills building activities utilized, time spent on the whole unit as well as individual topics within it, and teacher, school, and district variables that may affect implementation. Also as Florida mandates sexuality education, results were used to help determine compliance.

This chapter begins by emphasizing the importance of comprehensive sexuality education as a means of helping to decrease the prevalence of negative consequences associated with early sexual behavior. The recommended scope and nature of sexuality education, support for sexuality education, and factors of effective programs are outlined

The next 10 years (1980s) sexuality education (including state and district guidelines, and classroom implementation) are reviewed. Guidelines, standards, and implementation of sexuality education in Florida are addressed. Lastly, other important consequences (such as in sexuality education such as the materials and teaching methods utilized, the time spent teaching it, teacher training and certification, and teacher attitudes toward teaching sexuality education are explored. The chapter concludes with the need for additional research on the implementation of sexuality education at the classroom level and the factors that may be related to the implementation.

### Comprehensive School-based Sexuality Education

One way to help decrease the prevalence of negative consequences associated with risky sexual behavior and to promote healthy sexuality is by providing effective sexuality education. Professionals agree that sexuality education is best offered through a comprehensive (skill based) approach, and linked with community resources (HATCH, 1992). This approach includes targeting cognitive, affective and skill domains at all school grade levels, and being included as part of a comprehensive school health education program. A broad range of topics should be included as well (Yabari, 1994). Many see sexuality education as a solution to the high incidence of adolescent pregnancy and HIV/STDs. However, promoting a positive view of sexuality is also important. (Yabari, 1994)

## The Scope and Nature of Comprehensive School-Based Sexuality Education

In 1990, the *National Information and Education Council of the United States* (NIEUS) convened a task force of leading educators, health professionals, and national educational representatives to formulate the broad concepts and sub-concepts necessary for comprehensive sexuality education. Each concept includes life factors and developmental resources as well. The *Guidelines for Comprehensive Sexuality Education* (Guidelines) issued in 1991 provide an organizational framework for human sexuality and health living within four developmental levels: encompassing grade levels spanning through middle. There are six main concepts: human development, relationships, personal skills, sexual behavior, sexual health, and safety, and values – encompassing 36 topics (see Table 2.1 at the end of this chapter).

Further, the *Guidelines* conceptualize sexuality education as a lifelong process offering attitudes, beliefs, and values with its primary goal being the promotion of sexual health. (“National Guidelines Task Force, 1993). These programs should clearly strive to help individuals develop a positive view of sexuality, rather than merely warning, abstinence, and the possible negative consequences associated with being sexually active. The concern is like the World Health Organization (WHO) definition of sexual health: “The integration of the physical, emotional, intellectual, and social aspects of sexual being in such a way that one positively embracing, and that includes (personality), communication, and love – every person has a right to receive a sexual satisfaction and to consider exploring sexual relationships for pleasure as well as for procreation” (WHO, 1993).

Several studies indicate that youth with negative feelings about their providers do not protect, pre-empt, and STD-prevention as consistently as those with more positive attitudes (Fisher, 1990). Negative feelings about sexuality have been found to interfere with a knowledge-gaining, understanding sexual acts as learning sexual information, and communication with others about sexuality (Farber, 1994).

The *Guidelines* outline four primary goals for sexuality education: 1) to provide accurate information; 2) to provide an opportunity for young people to question, explore, and correct their sexual attitudes; 3) to help young people develop interpersonal skills; and 4) to help young people exercise responsibility regarding sexual relationships. There are also five assumptions underlying the *Guidelines*. They state sexuality education should be offered as part of an overall comprehensive health education program; it should only be taught by specially trained teachers; the community must be involved in the development and implementation of the program; all children and youth will benefit from it; and all three learning domains—cognitive, affective, and behavioral—should be addressed (National Guidelines Task Force, 1995).

The *Guidelines* rely more on the affective and behavior level domains in addition to the cognitive—except for some research results on knowledge-based programs. Although knowledge about sexual topics may be an important precursor to behavior change, it appears to be very weakly related to adolescent sexual behavior. Other outcomes of educational programs such as changes in attitudes, norms, skills, and intentions are also poor correlates to behavior. However, even these do not adequately predict change in actual sexual behavior (Kutty et al., 1994).

Results of an analysis of school-based programs to reduce sexual risk behaviors indicated several features a consensus exists among programs with a positive impact on sexual behaviors (Kaul et al., 1994b). These features include: (1) a narrow focus on reducing specific sexual risk taking behavior; (2) the use of sexual lessons themselves as a foundation for program development; (3) providing basic accurate information about the risks of unprotected intercourse and methods of avoiding unprotected intercourse through external activities designed to personalize this information; (4) awareness that address social influences or pressures on sexual behavior; (5) reinforcing clear and appropriate values to strengthen individual values and group norms against unprotected sex; and (6) providing modeling and practice in communication and negotiation skills. While these components are representative of most effective programs, they are clearly not typical of school-based programs. Only four studies provide adequate coverage of the three learning domains, acquiring, affecting, and doing, in their respective education guidelines (Gambrell & Palumbo, 1995).

### Support for School-based Sexuality Education

Public support for the involvement of schools in implementing comprehensive sexuality education is higher than ever before. Ninety percent of parents want their children to receive sexuality education. Over 80% of them want their child to be taught about "safe sex" as a means of preventing HIV/AIDS (Lewin Group & Associates, 1993, 1998; Gallup & Clark, 1997). Over 50 national organizations endorse that all children and youth should receive comprehensive sexuality education (NACLES, 1993). State and



states, some programs do require delivery through a supported (e.g., mandated) platform (i.e., school curricula, education) for assessment. In SECCU's (1993) study, 47 states, territories or policies requiring or recommending sexual education (here, eight states plus the District of Columbia (D.C.) and Puerto Rico) have developed curricula or guidelines to provide program content in local school districts.

Government support of school health education, and more specifically, sexual education, is evident in that these programs are covered in achieving the Healthy People 2000 objectives (DHHS, 1990). These objectives, developed by public health officials, provide practitioners, health systems, and communities with services as a challenge for the level of health that both public and private sectors of the American nation should seek to achieve. Several of the 21 priority areas directly address adolescent sexuality issues, such as family planning, HIV infection, and STDs. Also, the Centers for Disease Control and Prevention has identified six areas of behavior that contribute to the leading causes of mortality and morbidity in the United States. One of these is sexual behaviors that contribute to STDs, HIV, and unintended pregnancies (Kahn et al., 1996).

Support for school-based sexual education is also apparent from a practical perspective. Schools provide a unique setting for reaching large numbers of students with important prevention and early intervention strategies. Nearly 84% of all school-aged adolescents and children are in elementary or secondary schools (Damon & Kahn, 1991). Most students attend school before they assume sexual role-taking behavior and as a result, are reached when they assume sexual activity. Hence, many use schools as

public, interactive, confidential, appropriate and safe methods aimed to encourage reducing sexual risk-taking behaviour (Garry, 2000).

### Efficacy issues of school-based sexuality education

The most effective sexuality education programs are comprehensive, skill-based and linked with community efforts (FETCLUS, 1997, p. 14). These programs should be tailored to meet the needs of the students served by the programs. They should include effective theory-based classroom education, confidential health services, and health counseling (Major, Goodell, & Cooke, 1992). Sexuality in the public schools plays a major role, reshaping and influencing the behavior of adolescents (Cabanahan, 1990).

School-based sexuality education programs have been shown to go beyond increasing knowledge about sexual issues, to actually delay initiation of intercourse, reduce the frequency of intercourse, reduce the number of sexual partners, or increase the use of condoms or other contraceptives. These programs have the potential to reduce unintended pregnancies, exposure to sexually transmitted diseases and HIV (Kirby et al., 1994). Previous research found that adolescents who had taken sexuality courses were no more likely to engage in sexual intercourse than those who had not had a course (Marshall & Klein, 1984; Zelnik & Kim, 1982). If they had been sexually active, those who had taken sexuality education classes were significantly more likely to use contraception (Deussen, 1986; Marshall & Klein, 1984; Zelnik & Kim, 1982).

Zelnik et al. (1988) reported an increased use of contraception by males and females, a delay in first intercourse, and an increased use of family planning clinics.

among students enrolled in a school-based abstinence and condom program. (Carter, 1999)

Clement and Schmittner (1987) reported a reduced teen pregnancy rate for a community-based sexuality education program with a strong school-based component. The Pregnancy Related Involvement program helped decrease the number of adolescents initiating sexual intercourse and the number of pregnancies among those in the program compared to those who were not offered and McCabe (1993). The Reducing the Risk program helped increase participants' knowledge and positive child communications about abstinence and contraception. Among those who had not had sexual intercourse prior to the program, it significantly reduced the likelihood that they would engage in intercourse in the next year and a half, as well as reduced unprotected intercourse either by delaying the onset of sexual intercourse or by increasing the use of contraceptives (Kahn, et al., 1999). The Preventing Adolescent Pregnancy program reported older teen girls who completed the program were half as likely to get pregnant as those who participated less or not at all and younger teen girls were twice as likely to postpone sexual intercourse (Orloff, 1994).

This section reviewed the nature and scope of support for, and effectiveness of, comprehensive sexuality education. The basic components necessary for effective comprehensive sexuality education programs as agreed upon by professionals in the field were outlined. Support for sexuality education by parents, school personnel, and other officials was included. Evaluation of effective sexuality education programs demonstrated the potential of these programs to significantly affect the sexual related

knowledge, attitudes and behavior of school children. First, the prevalence and quality of school-based sexuality education throughout the nation are examined.

### The Status of School-based Sexuality Education in the U.S.

Although research has shown that much support exists for school-based sexuality education at the state, district, and local levels, few teachers, parents, and students themselves know as much about sexual education implementation, the extent to which institutions comply with state and district policies (Donenberg, 1992). Policy adoption does not always result in effective programming. A Harvard-based poll found that 40% of students had not had sexuality education at school and that only 33% had a comprehensive sexuality course (Lewis-Blum, 1994). NSICUS estimates that less than 40% of American students receive comprehensive sexuality education kindergarten through twelfth grade (NSICUS, 1992). Few studies have directly named teachers responsible for sexuality education.

Two nation-based polls measure state and district sexuality education guidelines. Their research on sexual classroom implementation of sexuality education is on-going. Studies have been conducted at both the national and state level, although the components of school-based sexuality education assessed and the research status of the studies vary. Lastly, Florida sexuality education guidelines, guidelines, readiness, and implementation are discussed.

### State or D.C. Sex Education

The number of states requiring sex ed. to begin in fourth grade has increased to 23, plus the District of Columbia (D.C.) and Puerto Rico (National Abortion and Reproductive Rights Action League (NARAL) 1994). In 1995, 20 recommended it and 17 required it according to Garbrecht & Haller's consensus review report by Kathy Leland & Diana in 1995 and somewhat less than the 15 reported by de Vries (1994-95). This is a tremendous increase from the three states that mandated sex ed. prior to 1980 (Garbrecht & Haller 1993). However, only twelve states mandate sex ed. education in grades kindergarten through twelfth (Haller 1992).

There are states (plus D.C. and Puerto Rico) that also adopted curricula or guidelines to provide program standards based on local districts, twelve states have not (Garbrecht & Paterson 1994). There were consistently developed guidelines (7-12) than curricula (5-17). This suggests a preference to defer to local discretion for the specifics of programs (Garbrecht & Haller 1993/94). Only 15 states, the D.C., and Puerto Rico have regulations that monitor the implementation of curricula adopted at the local level (Garbrecht & Paterson 1994).

Almost all of the guidelines/curricula include abstinence messages as well as positive risk/reducing statements about having sex safely. However, most state guidelines omit sexual behavior topics, exclude topics considered to be controversial, lack a balanced coverage of abstinence and safer sex, and lack thorough coverage of topics throughout kindergarten to twelfth grade (Garbrecht & Haller 1993/94). Most do not include age-appropriate developmental messages. The topics most commonly

various in situ practices include: human-to-algorithmic, machine-to-human, body-to-body, relationships (i.e., family, parenting, friendship), personal skills (decision-making and self-management), and sexually-transmitted diseases and STI reduction. Less than one-third of individuals sexual behavior target bodily substances. Fewer than ten studies cover shared sexual behavior, human sexual response, human, and sexual dysfunction. When they do discuss sexual behavior, they tend to focus on the negative aspects of sexual activity instead of promoting sexual health and responsible decision-making. Few studies include sexual identity and orientation (N=13), consent (N=11), and sexuality and religion (N=4). When sexual identity and orientation are discussed, it is largely limited to definitions, such that states actually affect sexual identity as an essential quality of persons (i.e., Only 21 mentions or conceptualizes identity as a ground or virtue, (Kanehill & Hallam, 1993/94).

Unfortunately, some states restrict sexuality education and parental consent, the sex-ed banned or sex-based curricula. For example, 19 prohibits making contraceptives available, 15 prohibits or restricts abortion decisions, and eight require or recommend teaching homosexuality as an acceptable lifestyle and/or that it is a criminal offense under state law (NAGLE, 1995). Sex-based programs are problematic because they restrict sex and abortion education in order to discourage sexual behavior. They also exaggerate the negative consequences of potential sexual behavior and portray sexual activity as harmful and dangerous. These programs are in opposition to the goals of the comprehensive curricula recommended by professionals, which seeks to assist adolescents

as the stages, a flexible understanding of these variables and enables them to make responsible decisions (Kaner, 1990:95).

Five studies have assessed sexuality education in terms of educational guidelines. The first study by Kaner, Gaudale, and Brown of the Alan Guttmacher Institute (AGI) was used 142 of the largest school districts, each having more than 22,000 students in their student education policies. The sample represented 79% of students in U.S. public schools. The researchers found that 87% of districts required or encouraged sexuality education and 96% AIDS education. The majority (87%) also had a curriculum on abstinence or AIDS education and more of the schools were in the process of developing one. Most of the districts developed their own curriculum (87%), 17% used the state education agency's curriculum, and five percent used commercially available documents (Kaner, Gaudale, & Brown, 1999). 6% of AGI districts had a sexuality education curriculum reported it was mandatory for schools in that district. Those that did not use it was nevertheless used by the majority (66%).

More than 90% of these districts viewed the negative consequences of sexual activity and unprotected intercourse as the best reasons for preventing pregnancy and STDs. About three-fourths (74%) included an explanation of how each contraceptive method is used. When discussed condoms as a means of preventing AIDS (69%) and when STDs (80%). The districts tended to place an emphasis on abstinence and the possible negative reactions of sexual activity, yet recognized that on these of issues are usually reported and used risk reduction messages (Kaner, Gaudale, & Brown, 1999).

Figure 3.1 appears to indicate programme dissemination will increase the amount of discussion in school, although there is no relationship between state and district sexuality education policies. Districts were asked more not less likely to adopt a specific version, national policy based on the state's policy (Kenny, Gombato, & Brown, 1994). Schools' policies also differed little regardless of the state policy, as did many Florida's. It appeared more likely that state policies were followed than that encouraged the inclusion of certain topics rather than when they discouraged the inclusion of topics (see 1992). Although the policies and programs of states and school districts are important guides that provide basic process, information about what is taught in the classroom. Without such information, however, the design, implementation and evaluation of sex education initiatives are seriously hampered" (Forsyth, 1999, p. 45). Findings from the M-REAL data review (1994) also concluded that legal guidelines not only fail to ensure comprehensive sexuality education, but even limit their progress in encourage the use of forced/ fear-based curriculum.

Mannix (1999) asserts there is little interest in whether the state guidelines actually change or improve the quality of sexuality education. Although not all state law-developed guidelines for school sexuality and HIV/AIDS education programs would do not provide the foundation for truly comprehensive programs, as demonstrated above. In fact, fewer than one-third of the state curricula provide young people with a comprehensive base of information and education" (National Guidelines Task Force, 1990, p. 15). Thus being the case, much responsibility is left to the local level and with the individual classroom teacher.



### Classroom Implementation of Sexuality Education

Over the past fifteen years, several research studies and secondary publications have contributed to the national and state level to assess classroom implementation of sexuality education. The national studies were conducted by Gens (FYC), Smeaton and Pomeroy (1984), Louis Harris and Associates (1984), Allen Gannett and Associates (1988), and the Centers for Disease Control and Prevention (1991). The state studies include Lubinski and Wells (1981), Marston (1984), Coleman (1990), Fennell (1994), and Lachar, Boudin and Hoffman (in press). All have used different criteria. This criteria has evolved over the years, as have sexuality education programs. It distinguishes a more comprehensive curricula.

In 1982, Gens performed secondary analysis on two national studies—the 1977 National Institute of Education survey and a 1978 follow-up by the same organization—to determine the status of sexuality and comprehensive education in U.S. public high schools. The first study was done in principals of 2,600 U.S. public high schools to gather information on school characteristics, organizational and curricular practices, parental involvement, community relations and parental involvement. There are principals of the principals reported their school offered a separate family life or sexuality education course. A follow-up study of one representative in each of these schools (24=74) was then conducted to assess whether a sexuality education course was offered, along with a series of questions about course structure and content. A response rate of 434 (5=227) was obtained.

Teachers reported including approximately 18 of the 26 topics. The most commonly covered topic was "sexual disease," followed by pregnancy and childbirth. At least 90% of instructors included puberty, changes anatomy and physiology, drugs, alcohol and sex (during and teenage pregnancy). Contraception and abortion were included in 70% of classes. Other sensitive sexual topics such as homosexuality and masturbation were discussed by more than half of instructors. When the topics were grouped into five areas, 80% of schools reported covering all of the topics: native sexual development (4 during adolescence); 77% all of the human reproduction topics; and 40% all of the sensitive topics-related topics. Less than 20% reported teaching all of the topics related to sexual values or norms + moral subjects; only about half of the topics were consistently taught in these two areas (Gier, 1982).

There were some obvious limitations to this study. It was a secondary analysis of information that was collected for a different purpose. An endeavor was made to indicate any particular set of school or community characteristics might be more likely to provide whether a school would offer a separate sexuality education course or what was included in it. Other variables that were not analyzed may have better explained this. The results were based on the responses of the school principal, thus an over-estimation of sexuality education from each school. Other institutions may have given different responses. The content of the sexuality education information provided was not assessed, and could have varied from school to school. Finally, the information gathered was from schools that offered sexuality education as a separate course, suggesting over-time and

approach, we cannot fully understand what school districts may have included the information within their curricula (Fry, 1982).

Wells, et al., and Fleming (1984) conducted a study of school districts in areas with a population greater than 100,000 (N = 192) to assess the extent to which sexuality education was taught in public schools. The independent items comprised of accurate representations, delivery of instructional services, curriculum specialists, direction of homemaker, and coordination of family life education (FLE). A 90% response rate (N = 174) was obtained. Of districts with junior and senior high schools, 72% and 78% respectively, provided sexuality education. Over 90% of school districts reported that more than 90% of students at all levels received sexuality education, while one third reported 100% student participation.

The physiological aspect of sexuality was the most commonly covered topic, included by more than 90% of districts. Personal and interpersonal aspects of sexuality were included by 80-85%, and contraceptive and issues of family planning were seen by 75%. These topics concerned contraceptive use and sexual abuse, masturbation, abortion, and homosexuality—were covered much less frequently, by an average of half of the districts. To measure the comprehensiveness of the sexuality education offered, four increasingly rigorous criteria were included. They included discussing the topic, report of the curriculum or if student initiated questions could be discussed in class, reporting at least 75% of students enrolled in sexuality education, discussing the topic in depth, considered to be at least one class period, and topics introduced in junior high school or earlier. As the parameter became more stringent, it became clear that sexuality education

a factor of 10, and 1970s were not as extensive as first indicated. For example, while STDs were 6-10% and 10-15% in the 1940s and 1950s, also, 40% also had 15% involvement, only 17% also had an in-depth intervention in the 1950s, and finally, 37% also introduced it before grade nine.

There is one more limitation with this study. Only large school districts were surveyed, so findings may only generalize to similar districts. Also, the respondents were at the administrative level, so they may have more accurately described the actual implementation of sexuality education. The findings demonstrated various responses to school districts' provision of sexuality education. Many provided some sexuality education but for lower-middle in-depth and thereby coverage on important topics (Homonson & Pomeroy, 1984).

Kahninsky and Woods (1984) surveyed superintendents, principals, and FLE teachers in California school districts, with a sixth and/or seventh grade above their FLE efforts. The topics covered by more than one out of ten included STDs, human reproduction, pregnancy, and birth control measures, methodology, and consequences of teen pregnancy. The topics least often covered by the respondents included: other topics such as premarital counseling, adoption, sexual health care, right and wrong about sex, and sexual orientation. More than 37% of teachers reported including at least 20 different topics. However, it was noted that data may have over-represented longer content since the survey was greatest teachers who were most involved with FLE in their schools. It was estimated that 14% of sixth graders and 37% of tenth graders received some FLE in the 1981-82 school year (Kahninsky & Woods, 1984).

in 1980, Louis Harris and Associates conducted a national poll for Planned Parenthood Federation of America (see 13,000 teens age 12 to 17). The poll asked, in part, about teenage education in school. Fifty-nine percent of the teens surveyed reported they had a formal course in teenage education in school. However, the education described was less than ideal. Only 30% of all the teens had received what was considered comprehensive teenage education. Comprehensive was defined as courses that included instruction on the various sex topics, socio-psychological facts about reproduction, talk about coping with sexual development, information about the different methods of birth control, information about preventing sexual abuse, facts about diseases, and facts about where to get contraceptives (Louis Harris, 1980).

In 1983, the Alan Guttmacher Institute (AGI) conducted a national study to help identify strengths and weaknesses of existing teenage education programs. This information was to be used in their development of recommendations for sexual policies and programs at all levels (Ravoff, 1989). This surveyed 4,200 secondary public school teachers nationally, in disciplines from health/teenage education teachers on sexuality alone. The five disciplines were health/physical education, family and consumer sciences, biology, and school nursing, for grades 7-12. The teachers were asked what they taught in their teenage education classes regarding pregnancy and STD/HIV prevention and what they reported as obstacles (Doncorse, 1989). Ninety-four percent of the public school teachers surveyed reported their schools offered sexuality or AIDS education in some form. Forty-five percent of the teachers actually provided teenage education in class.

ment. However, parents are equipped with the status of the student's AIDS education (Farmer & Salovey, 1999).

Among the teachers who provided a teacher education 76-79% covered AIDS, STDs, and sexual decision making; 83-89% covered abstinence; both content methods and clinical aspects of abstinence; 64-77% dealt with heterosexuality; safety sex practices; and ethical issues surrounding abstinence; and 57% provided information about location of birth control (Farmer & Salovey, 1999). Almost 90% taught abstinence as the best way to prevent pregnancies and STDs. Fewer schools presented condom use as a possible way to prevent HIV, other STDs, and pregnancy. Another 39% encouraged condom use only for the prevention of STDs and HIV. Three-quarters observed about how to use condoms (Duncan, 1999).

One-fourth of teachers are teach both content methods only when asked specific questions (Duncan, 1999). The vast majority (99%) of teachers felt that secondary education classes should address where students could go to obtain a method, but only 48% were in schools where this was done (Farmer & Salovey, 1999). Ninety-one of ten covered HIV and STDs, but not always the most common STDs (Duncan, 1999). Most teachers thought a wide range of secondary education topics related to the prevention of pregnancy and STDs/HIV should be taught and that these topics should be taught by grades 7-8 at the least. In practice, it did not occur until the 9th or 10th grade (Farmer & Salovey, 1999). Results indicated that teachers believed more are helping adolescents avoid pregnancy and STDs/HIV than are the full range of levels, high and secondary education (Duncan, 1999).

In the studies that, just cited, have examined FLE in New Jersey, where a [Massachusetts \(1997\)](#) study of the state of last assessment. PRG administrative support and monitoring of the state have reported lacking. Information (1998) studied the factors in implementation of New Jersey's kindergarten through twelfth grade FLE studies as a case study on six of 66 school districts. The state studies provided the broad goals of curriculum but required that districts make an effort for the curriculum. Teachers, administrators, and school board and community members involved in implementing the FLE program were interviewed. In the five annual districts that all included such topics as families, social problems, social and personal interaction, the life cycle, family formation, life, body, and sexuality (physical and psychological development, reproduction, contraception, STDs, sexual abuse, and sexual relations). However, that district means the topics were all covered in one class. Rather than, was addressed in different courses at different grade levels, and the information was then designated as FLE. In grades 9-12, FLE was usually a unit within health education that, according to most districts, included sexuality, family formation, and social problems (Mansueti, 1998).

In 1998, Colorado sent surveys to all 212 and 1047 educators, as supervisors of high school health education classes in 56 New Jersey school districts. Thirty-two (64%) were completed and returned. AIDS and STD education units were taught in two grades in 20% of the high schools, in three grades in 23%, and in four grades in 20% of high schools. Respondents were asked to list the educational objectives as their curriculum emphasized with regard to STDs and HIV. The only one listed by at least half was to

gender, wealth and demographics, accurate information (HIV) and/or discuss (STD) and management of gonorrhea (GPO).

Levine (1994) previously explored the content and context of sexuality education 'new lesson'. The survey was completed by 204 FLE teachers. Ninety-six percent of respondents said FLE was required in their schools. It was assumed that 90% of students in the gender sexuality education was offered, took these courses. All eleven districts assessed themselves with some prohibiting the derivation of any option except attendance. Strong reaction was given to HIV/AIDS education. These mandates required teaching AIDS in every grade level while FLE was only taught in form or four.

Survey information was requested from 17 topics the respondents considered to be part of the FLE curriculum. What teachers chose to address for "sexual" topics such as sexual development, pregnancy, and reproduction. Most also dealt with general topics such as responsible behavior and skills. Although many discussed the risks of premature sexual activity, the discussion was rarely linked to concrete coping mechanisms for reducing these risks. Almost none of the teachers and students were available in their schools, less 11% discussed condom use with their classes. Only 30% demonstrated how to put one on and 23% informed students to agree that distributed condoms.

Results show that although almost all students were required to sexuality education, the actual curriculum provided did not correspond with profiles of sexuality education programs that have been most successful in helping teens avoid pregnancy, STDs, or HIV. In addition, little time was actually spent on sexuality education and many topics were introduced late in students' schooling. Few teachers viewed



preventions oriented topics, and difficult topics received limited time. Results also suggested teachers were most likely to provide facts rather than dealing with emotions or guiding behavior. Two-thirds or more provided facts for all 17 topics across two-thirds or more deals with feelings for all but contraception and condoms (67%) and STDs (69%) and two-thirds or more provided behavior for all but five topics: sexual orientation (40%) and contraception (47%), guiding behavior (43%) and condoms (49%).

The Center for Disease Control and Prevention Division of Adolescent and School Health (DASH) conducted the School Health Policies and Programs Study (SHPPS) in 1994 (Collins et al., 1999). This study looked at multiple components of school health at the state, district, and school levels. At the school level, interviews with classroom health education teachers included components on curricular and SHPPS/SDG education. Specifically, at least half or more of health education teachers taught about: abstinence (74%), preventing STDs (73%), signs and symptoms of STDs (79%), dating and relationships (67%), sexual influences on sexual behavior (64%), the reproductive system (67%), sexual norms toward risk behaviors related to sex (64%), perception of risk for STD and pregnancy (66%), access to STD screening programs (69%), resistance to STD and unintended pregnancy (66%), consequences (54%), marriage (50%), and persistence of sexual risk behaviors among adolescents (50%). Although Collins et al. (1999) found that many teachers included sexuality education topics, conclusions suggested the need for increasing coverage of priority health issues for youth—including pregnancy prevention and STD prevention, —to strengthen school health education at the future.

*Teacher Perceptions of the Degree of Importance of the Topics of Sexuality Education as*

### *Comprehensive Instruction Using the UNESCO Guidelines for Comprehensive Sexuality*

#### *Education (Guidelines)*

Teachers and 187 health education teachers in grades 5-12 then found that 51.3% of the 38 topics were included by 90% or more, 27 by 70% or more, and only three by less than 50% of teachers. Ninety-two or more included STDs and HIV, decision-making, abstinence, puberty, reproduction, values and orientations. Eighty-nine or more included knowledge, love, reproductive anatomy, multiple partners, abstinence, help, contraception, sexual identity and orientation, genital, and body image. Seventy-seven or more included menstruation, marriage and intimate communications, parenting, sexuality throughout the lifespan, and reproductive health. Sexual abuse, sexuality and women, and sexuality and the media were included by at least ten out of ten teachers. Fifty-four half of teachers included human sexual response, masturbation, shared sexual behavior, diversity, sexuality and culture, sexuality and the law, sexual dysfunction, identity, and sexuality and the arts. When the teacher sample was examined, human development was found to be included most frequently, and sexuality and culture least often. (See Table 3-4)

Teacher ratings of the degree of importance of the topics as part of comprehensive sexuality education found that 22 topics received a mean score of at least 4 (5=extremely important, 3=moderately important). Only three topics had average ratings less than moderately important. The key concept of personal skills was considered the most important and values was considered the least important. (See Table 3-5) When the importance and inclusion of topics were analyzed, they were found to be positively

estimated. Thus, a two-type fixed-effects model might, in addition to the fixed-effects, add three fixed-effect variables: (1) a regional effect (Lipsey & Hoxby, in press).

Recent evaluation of state-level policies found that sexuality education is mostly taught within health education (44 states). It is also commonly placed under family and consumer sciences (28 states), AIDS (28 states), and science (19 states). It is less commonly placed in physical education (13 states) and "other" (13 states) (Gendrell & Hoxby, 1999). Local-level administration is responsible for the placement of the sexuality teacher or teacher education. Another source among practitioners, in 16 states, reported that teachers in sex and discipline handle instruction. Discipline educators were more commonly named. Other disciplines responsible included health and consumer sciences (36 states), classroom teachers, especially in the elementary grades (10 states), and physical educators (17 states). Instruction supervisors were also named and by public health educators (28 states), nationally agency executives (17 states), professional sexuality educators (17 states), and school nurses (14 states) (Gendrell & Hoxby, 1999).

There is a great deal of variation in the studies that assessed the status of school-based sexuality education over the past decade and a half. They used different assessment methods—surveys, secondary analysis, case studies. The samples ranged from national to state, and the respondents from superintendents, principal, lead teacher, classroom teacher, to student. No two surveys assessed the exact same sexuality concepts or factors affecting implementation. So, while the variation, at best, is an approximation of

at all. Besides, education has improved over time and with the increase in the number of men and women physicians/nurses.

However, it appears that the most basic sexual education topics have been the most well understood and consistently taught. These topics include those such as STDs/STI, sexual anatomy and physiology, sexual development, pregnancy, and birth control/contraception, and decision making. Topics generally considered controversial have been consistently less well understood. These topics include masturbation, homosexuality, and sexual behavior. Other topics such as abortion, birth control, rape and abuse, and condoms seem to fluctuate in how consistently they are taught. This is probably due in part to the nature of the information asked about each concept. For example, does a teacher suggest condoms for STD/STI protection, explain how to use them, actually demonstrate correct use, or tell students where to get them? Overall, it appears a basic level of sexual education concepts are being provided in classes although it does not seem consistent with the nature of concepts found in effective programs. Further assessment using updated and comprehensive measures of sexuality education are necessary to determine the status of school-based sexuality education. Maximally comprehensive in both the scope and nature of sexual education concepts taught are necessary to have an impact on students' knowledge, attitudes, and behaviors.

### The Status of School-based Sexuality Education in Florida

Since 1975, Florida has legally required Comprehensive Health Education for students in kindergarten through twelfth grade. In 1987, the Florida Legislature

through AIDS education in middle and high schools. In 1980, age-appropriate Human Sexuality Education (HSE) was adopted as a component of the Comprehensive Health Education law in kindergarten through twelfth grade in an effort to prevent teenage pregnancy and the spread of sexually transmitted diseases. In 1991, the School Improvement and Accountability Act was adopted by the Florida Legislature in an effort to ensure education delivery standards for the students (Bajbouh, 1994).

In 1994, Florida created the Report of the HIV/STD Prevention and Control Scientific Education Task Force, Components of Quality HIV/STD Prevention and Human Sexuality Education (Components). It was a joint project by the Department of Health and Rehabilitative Services and Florida Department of Education (DOE) sponsored by the Centers for Disease Control and Prevention, Division of Adolescent and School Health. The purpose of this project was to serve as a source of information to Florida school districts (Bajbouh, 1994).

The development of the Components stemmed from a report by Governor Clinton Bell Highway Panel on AIDS. This panel was convened in 1992 to address specific recommendations on how to better the state's HIV/AIDS education and prevention programs (Bajbouh, 1994). The panel released the following in a 1993 statement:

Our hearings revealed that Comprehensive Health Education, including AIDS Education required by Florida law, is inconsistent and of varying quality around the state. Local guidelines often are flawed with prevailing one-year-olds with the information, practices, and skills that they need to live healthy productive lives (p. 2).

To address the on-school prevention issues addressed above, the Panel called for the development of instructional guidelines for HIV/STD prevention education. In this

instead from the US Commissioner, the panel stated the following: "Competitive funding and HIV/AIDS education is greatly lacking when through no other should be a joint effort... (Fig. 19.1) and its local school boards. Education efforts in this area should be fully funded and require certified health educators. The state should set instructional guidelines, specific goals, and outcomes for which the local school districts are accountable, with minimum standards for the school boards. Based upon this recommendation, a task force was charged with addressing the previous recommendations for establishing instructional guidelines for HIV/AIDS education within the context of the DOE's Blueprint 2000 initiative and ensuring local decision making and accountability (Bogard, 1994). Hence, the *Competencies* were developed.

In 1993, such as, SIECUS received state education agency (SEA) HIV/AIDS prevention and sexuality education programs. They reported that the Florida SEA indicated all school districts implemented sexuality education, even though no state regulations occurred its implementation. Although Florida did not require training or certification of secondary education teachers, it did encourage and provide training opportunities. There was no state initiative to develop or use or recommend materials to be taught at various grade levels; however, according to SIECUS facilities had such opportunities in place. SIECUS recommended requiring training and certification of sexuality education teachers and the development of a state level agency (Gambrell & Parsons, 1993).

The SIECUS report also reviewed one of Florida's curriculum guidelines (Fig.

*James Gambrell and a Florida Health and Sexuality Education (1993)*. However, this is not the

most current practices used and to include. The *Language* described earlier, and more recent, and the reasons are discussed in the results section. The *Language* was found to cover all six key concepts from the *Guidelines* and 16 of the 35 topic areas. The key concept was covered thoroughly, and human development and relationships were covered almost thoroughly (see Table 3.8). The *Language* gave specific topic coverage for grades six through twelve. Overview language included an explanation of topic coverage for grades kindergarten through six, but did not provide clear guidance to discuss or focus on each topic for elementary grades in an age appropriate manner. MECL 5 recommended expanding the guidelines to ensure open and thorough discussion of various topics grades kindergarten through twelfth, especially those not currently covered (MECL 5, 1993).

In addition, the issue of school based sexuality education is not what it needs to be to support the sexual health of adolescents. It does appear that a handful of all sexuality education is provided for most students. Best and desired comprehensive guidelines throughout the nation, including Florida, are in place for the most part; however they are not indicators of quality school based sexuality education. Overall, they do not cover the full range of sexuality related concepts, nor do they cover all important aspects of a given concept. Instruction at the classroom level is comprehensive. It appears that is still a need for improvement of and towards ensuring the quality and depth of sexuality education at the classroom level.

The topics covered are only part of the picture of comprehensive sexuality education. The materials used, teaching methods and skills-building activities related,

time spent, limited availability of textbooks/materials, physical environment, teachers' education are all also important factors that impact the quality of the science resources provided for students.

### Other Factors in the Implementation of School-based Science Education

The comprehensive nature of scientific related concepts might be important to scientific education. However, there are other factors that affect the delivery of these concepts. Appropriate teaching materials need to be available and up to date. Teaching methods and skills-building activities need to target all learning domains so that students are able to process and actually use the information learned. The time spent on teaching scientific education needs to be sufficient enough to allow coverage of all topics, as well as time for reinforcing and practicing related skills. Training and competence of teachers is necessary, not only to increase knowledge, but also comfort levels with subject matter and better methodology of teaching it. Finally, positive attitudes toward teaching scientific education are also an important factor in how and whether scientific related topics are covered.

### Materials Used in Implementing Scientific Education

Teachers have reported that administration, use, and availability of essential materials are major reasons of their feelings of inadequate preparation (Kuspa & Hershkov, 1999). In fact, one survey found teachers ranked lack of materials their greatest barrier to teaching scientific education (Hershkov et al., 1998). Even though



many states and districts are supplying the way that is found in the professional literature (Kinschell & Haffner, 1997/98). Individual districts and schools have made decisions as to how to implement these. Eight in ten teachers reported they used more resources (Dunne et al., 1998). One third (29%) of teachers had problems with materials or materials. They felt the materials were inadequate, were obsolete, or dated, had problems getting them approved for use, or that students found them uninteresting or difficult to read. Almost one-third (31%) reported that lack of adequate materials and information as the biggest problem they faced (Foster & Silverman, 1998).

A lack of readily available materials led many teachers to develop their own materials. Forty percent developed some of the materials they used in their classroom. 40% took control, 39% AIDS, and 19% other STDs. To say, some percent developed all of their own materials for classroom instruction, 14% for both control, 18% for AIDS, and 11% for other STDs. Fewer than half of secondary education teachers used any materials that had been prepared outside the school or school district, commercially or by organizations to teach about chemistry and birth control. About half (51%) used outside materials for STD instruction and 69% used such materials for AIDS instruction (Foster & Silverman, 1998).

Earlier research found that teachers depended most commonly (31%) on commercially developed materials, and 59% used it as their primary source (Ott, 1992). When (59%) also used materials they created themselves, 47% used government/non-profit agency created materials, and 38% school created materials. Teachers used an average of 2.4 of the five possible sources (Ott, 1992).

### Teaching Methods in US High-Schooling Antisocial/Deviant Behavior Education

In school settings, a variety of education models is taught to target the cognitive, affective, and behavioral disorders in order to be effective (National Commission Task Force, 1993). However, it is clear that all these elements are addressed at the state or classroom level. Only few studies provided adequate one steps of these three learning domains in their antisocial education modules (Gambrell & Pomeroy, 1993). Personal skills most commonly presented in state curricula and guidelines were too simplistic and did not include instruction on antismell skills or intervention strategies (Gambrell & Hoffman, 1993/94).

In the classroom level, few antisocial education studies have included teaching techniques. Thompson et al. (1990) reported teacher lecture was the most common method used by seventh, eighth, and ninth graders, and more innovative methods such as roleplay, small group activities, problem solving, and decision making strategies the least likely to be utilized. Finerman (1994) found that of the five most commonly reported teaching techniques, three were teacher directed: teacher-directed questioning, lecture, and work sheets. However, the most commonly used method was class discussion. Many teachers discussed the rules of promiscuous sexual activity, but rarely helped them to consider coping mechanisms to help reduce those risks (Finerman, 1994). Colwell et al. (1990) concluded that students were taught facts regarding STDs/HIV, but not how avoid them or how get help if they suspected they had been infected. Forest & McCreary (1988) reported that over thirty (64%) of teachers who did not sexual decision making needed teaching strategies. Orr (1982) found teachers utilized an average of 2.5 of six teaching strategies

with the use of both, one method being more. Eighty-six percent of high/ junior-high/ senior/ and junior high-school teachers. Nineteen-two percent used both (and 40% used small group-discussions) (Doe, 1982). It appears that although a variety of teaching techniques may be utilized by teachers, generally, there is not enough emphasis on the behavioral domain and skills building.

### Time Devoted to Sexuality Education

Identify competencies & secondary education takes place within health education performance through seventh grade (Kandelberg, 1994). The State of Florida reports that quality comprehensive health education programs, which include, HIV/AIDS prevention as a component, are usually 30 hours in length at each grade level and taught by trained health educators. (Eggert, 1994). Even though the majority of teachers find sexuality education should be given high priority, it is generally agreed that not enough time is devoted to it (Full, Piper, & King, 1993). Insufficient time in the curriculum has been reported as the major obstacle in one STD/HIV curriculum (Colander, 1996). Almost one-fifth (19%) of teachers in a national study reported lack of time was one of the two greatest problems they faced in teaching sexuality education (Finnest & Johnson, 1985) and it was ranked second of eight items that made it difficult to teach secondary education in another (Hagstrom et al., 1996).

In 1982, a national study found 64% of schools offering a separate sexuality education course reported at least five to 20 hours; 27% more than 30 hours, and one percent less than five hours (Doe, 1982). In 1984, over 50% of high school sexuality

of school programs (1997) found that about 60% of high school seniors (ages 18 to 20) have less than 50% of their lives spent in school, and 11% spend less than six hours (Sommerich & Friesen, 1990). Half a decade later, the amount of time spent on education, education-related, or 11.7 hours on grade seven and increased to 64.7 at the twelfth grade. The total number of hours spent from grade six on through twelfth is ranged 34.7 (Eaton et al., 1999; Friesen & Schumann, 1999). In SEDUS, second study, while 33% of teens reported that, most of secondary education, with 39% of teens indicated a year at the junior high level and 36% at the senior high level. Only 3% of all teens reported receiving instruction at secondary education more than while at school (Texas Tech., 1994).

At the state level, Kuhlmsley and Rivara (1984) reported that almost half (42%) of FLE programs were quarter or semester programs, and 21% were series of 12 hours or less within another course. The greater the number of class hours, the more likely it was that more concentrated topics were covered. The findings also have overestimated the actual workload of full semester/quarter semester courses because surveys were given to those most involved in FLE. Cavanaugh (1990) reported 34% of districts provided six to ten hours of instruction, 29% 11 to 15 hours, and 18% one to five hours. Fournier (1994) found that students received an average of 30 days of instruction per year in the state they took FLE courses. One-third of teachers in that study reported that students received 10 or fewer days and one-fourth of teachers said more than 40 days. Secondary education within FLE lasted an average of 14 hours with one-quarter (25%) of teachers reporting five or less hours, and one-fifth (20%) reporting more than 30 hours. Half of teachers wanted students to do one more class hour in FLE (Fournier, 1994).

### Evidence of the Effectiveness of school-based sexual education programs

Levinson, J. concluded that the amount of time spent in programs may not be as important as previously thought (Kaufy et al., 1994). Effectiveness was defined as having an impact on reported sexual or contraceptive behavior or their outcomes, such as pregnancy, levels of STD rates. One of the longest programs reviewed, 1<sup>st</sup> semester, was one of the most effective. However, after long programs, 30, 35, and up to 45 sessions, such was not effective. Furthermore, some of the shorter programs, 15 and 8 sessions, such, were effective (Kaufy et al., 1994).

### Training Contributions for Secondary Education Teachers

If sexual education programs are to prove effective, teachers need professional training on how to reach these subjects (KELCIS, 1995/96). With regards to sexual education, teacher training has been shown to increase knowledge, perceptions of importance of teaching the curriculum, intent to teach, and level of comfort with the course content (Lemonnier-Gaglioli & Blumstein, 1995). Higher levels of teacher cognates and affective comfort, and perceptions of adequate preparation have been significantly associated with student perceptions of course impact on their sexual knowledge, attitudes and anticipated personal future life (Blumstein & Gagnon, 1991). Teachers rated as more confident by their students have also been found to be more knowledgeable than less confident teachers, indicating that not only is content important, but also a high knowledge level (Blumstein & Gagnon, 1991).

Tarter, Finkle and Staffor (in press) conducted *teachers' perceptions* as their research and at teaching specific education were the teacher variable) in it (a) research, (b) the inclusion of research education topics. Teachers with this preparation felt more likely to teach topics in the sexual behavior and sexual health care concepts, from the SEDCS Guidelines, than those without it (Tarter, Finkle & Staffor, in press). Finally, teachers with the same knowledge reported in sexual education course content, were better able to maintain that knowledge, than those not teaching (Davis, Peterson, Wells & Monford, 1984).

Evaluation of health education program has also found a positive relationship between teacher in-service training and curriculum implementation (Connell & Hunter 1986). In-service training has been shown to enhance teacher feelings of preparedness which in turn was significantly related to teaching non-scientific subjects and more health lessons overall (Harrison & Runk, 1981). Studies of teachers with health education preparation revealed more specific health content, with a greater elaboration of the content, than did teachers of teachers without training. The trained teachers implemented a wide range of health topics delivered in an experiential and integrated manner (Hogarty et al, 1986; Rindler & Schneider 1994). Participants of health teaching workshops have also been found to believe more strongly than those not attending that they complete a good job teaching a variety of health topics, know how to teach health education effectively, and understand health education concepts well enough to be effective in teaching it to their students. They also believed that if they did a good job teaching health education, their students would be knowledgeable about health issues.

showed significant change. Teachers' self-reported behaviors, on a reliability/validity instrument (Harris, 1991), they reported spending more time per week, teaching health education and, especially, a greater effort on a variety of specific health content areas than those not attending. (Fullbright Trustee Study, in Press, 1996)

Unfortunately, teachers often do not have the skills, knowledge, or inclination to teach sensitive education classes (Rudolph et al., 1993/94). Teachers and school personnel have expressed interest for more knowledge about general HIV/AIDS-related issues (Ballard, White, & Glaser, 1990) and subjects such as sexual orientation, STDs, risk behaviors for HIV transmission, safer sex, and consequences with a sexual partner about HIV (Katz, Alamaroeth, & Gayle, 1991). A national study found 80% of teachers reported needing formal information, teaching materials, or teaching strategies regarding pregnancy and STD/HIV prevention. Almost half (49%) of those needed all three types of help for each topic they covered (Forsell & Johnson, 1993). The preparation of teachers who teach health-related/sexuality education is a significant concern (Collins et al., 1994).

State-level requirements for teacher training and certification in sexuality education are rare based on national assessments of guidelines conducted during the past decade (Ginsburg & Koffman, 1993/94; Ginsburg & Hoffman, 1995; and Ginsburg & Palamara, 1995; Kerner, Ginsburg, & Brown, 1996). According to the latest state survey (Ginsburg & Palamara, 1995) neither state D.C. and Puerto Rico required teacher certification for teachers of sexuality education. Only six states and Puerto Rico required teacher training in order to teach sexuality education. However, 17 states and D.C. did

provide some training in sexuality education, and more updated in a manual written by (MORCILLO, 1996).

Training and certification requirements are more consistent at the district level. Over half (50%) of all districts reported providing or AIDS education teachers to be certified, most often in health education (80%), but also in science (41%), plus social education, (30%), health, and consumer science (21%), biology (12%), or school training (11%). And, one percent of districts reported training the teachers of sexuality education. It is argued that due to no workshops or seminars, and no study provided in the health department or district itself. Training usually concentrated on information on the subject rather than curriculum materials or teaching techniques (Kenny, Chaudhri, & Brown, 1999).

In contrast, when teachers were surveyed in a national study about their training a majority of them reported training in sexuality education. It was found that 99% of the sexuality educators had undergone training that specifically prepared them for teaching this topic. Sixteen-eight percent had undergraduate training, 30% had graduate training, and 80% had attended workshops or seminars outside their formal academic course work. These primary education were not at sexuality education teachers because it is indicated above, most had other teaching priorities. Within the past year, 12% had attended a workshop, conference, or seminar designed to help them in their teaching of sexuality education (Forness & Silverman, 1996).

A state survey also found that FLE teachers tend to be experienced. Teachers in Louisiana's (1994) study had an average of ten years experience teaching FLE and 75%



reported having some preparation in teaching. This probably being because most of the teachers had training in TLE, ICT, and or human sciences. More than half had taken undergraduate courses on TLE (11%) and human sciences (10%) and more than one-fourth had graduate training in each area, 27% and 26% respectively. Half had received doctoral training on TLE (80%) and ICT/AIDS (52%) and more than half had received post-graduate training on TLE (62%), ICT/AIDS (77%) and human sciences (11%) (Furman, 1994).

The number of teachers reporting they need help teaching and those reporting they received training seems inconsistent. This may be explained in that the training is not recent or frequent enough to keep them updated with the areas of sexuality education. State and district level training programs tend to focus on content and not methods, materials or teaching methods (Kensler, Grunado & Brown, 1988). Also research on undergraduate teacher preparation programs found the sexuality education content to be lacking as described below.

Although over 80% of those teachers, sexuality education reported some training in secondary education (Furman & Silverman, 1989) only recently has the content of that training been investigated. Rodriguez et al. (1993/94) examined the course content of a sample of 144 courses offering undergraduate preparation of teachers, to assess the content and type of sexuality education provided. They found no schools required a sexuality education course for all pre-service teachers, almost no secondary (1%) or physical education (5%) certification programs required any content on sexuality education, and only 6.7% of programs required students in health education certification

programs to take sexuality education courses. Only nine percent of female students completed programs and three percent of physical education or fitness programs reported a sexuality course as mandatory. No schools required health education. Furthermore, students to take a course, in HIV/AIDS-related studies, parents offered my courses that introduced HIV/AIDS (Rodriguez et al., 1997: 166).

### Teacher Characteristics and Attitudes Toward Sexuality Education

A national study found that the majority of teachers teaching secondary education think it is important to do so. They even feel some topics—birth control, AIDS, STDs, sexual discrimination, substance use, and homosexuality—should be taught earlier than they are (Ginsburg, 1995). Fewer studies have shown that characteristics such as age, gender, marital status, and religious preference were not strongly related to the inclusion of topics in sexuality education courses (Farber & McCabe, 1981). Few studies have been conducted on the effect of teacher attitudes and concerns on use of a curriculum. (Ginsburg & Hamilton, 1994), but research does indicate that the attitudes and concerns are significantly related to the content of the instruction provided (Forsyth & Silverman, 1992; Levine-Ginsburg & Hamilton, 1990; Farber & McCabe, 1981; Farber, Tombs, & Haffner, in press).

Important teacher attitudes and concerns have been identified such as conflict presenting negative information and finding value-laden documents, and perceived adequacy of preparation which are modifiable by training and experience. These attitudes and concerns are directly reflected in students' sexual knowledge, attitudes, and

possessors of the effects of a secondary education course on their status behavior and life goals (such as: level of teacher performance and classroom effectiveness) (Hartman & Chagnon, 1997). Teachers' own philosophy and commitment to program objectives have also proved to significantly influence outcomes of an alternate site program. De Gooijer, Lavin, Wood, & Tamm (1994)

Past research found teacher attitudes toward their own sexuality were related to the inclusion of topics. Those with positive attitudes toward sex and sexuality tended to include topics related to their sexuality education course, especially topics related to sexual behavior (Yarber & McGillic, 1996). However, that finding was not replicated in a more recent study. The teacher characteristics that most consistently related to inclusion of topics included teachers' preparation in human sexuality, age, and academic preparation in teaching sexuality education (Yarber, Tondle, & Hallinan, in press). Instructor attitudes regarding whether or not a topic should be included in the curriculum have been found to influence their inclusion of the topic. Teachers that did not think some topics should be included, such as homosexuality, masturbation, sexual development, exploration, and sexual techniques, did not include them in their curriculum (Ott, 1992). More recently, high importance ratings of topics was correlated with the inclusion of those topics in the curriculum (Yarber, Tondle, & Hallinan, in press).

Most teachers who responded in our study placed high value on important, responsibility, and control issues on some control issues addressed, such as self-esteem, emotional skills, and STDs. However, diminished importance was placed on both control and student sexual behavior. These subjects are critical to educators in trying to

document provides results a comparison of sexual activity (Gagnon & Hensler, 1998). Although this study did not assess what is sexually taught, conclusions from studies cited above reported the documented likelihood of teaching subjects that were not rated important. Hence, it is important to measure teacher concerns and feelings of preparedness related to these topics to measure the likelihood they are included in sexual education curricula.

It appears there are several factors that are important to the implementation of school based sexuality education. A lack of readily available and current materials has led many teachers feeling inadequate and unsupported and led many to create their own materials. Teaching methods and skills-building activities are not addressed in state or district guidelines. Also, at the classroom level teaching methods are reported to be more teacher-oriented rather than student-centered, the important skills-building domain. Although there is not a specific time amount given for effective programs it is generally agreed upon by teachers that there is not enough time in the curriculum for sexuality education. It also appears that sexuality education courses are only being offered at one or two grades in high school rather than being incorporated in all grade courses with the comprehensive approach recommended by professionals. Training of sexuality education teachers when provided has a significant positive impact on teachers and their students. Research indicates most teachers would like more training. State and district certification and training requirements are not sufficient. Training offered at this level and that provided in professional degree programs does not adequately prepare teachers for teaching sexuality education. Finally, teacher attitudes are significantly related to the

nature of instruction provided. Although most students have positive attitudes toward teaching sexuality education, thinking could help to improve attitudes overall and perhaps toward specific topics, hence enhancing the quality of sexuality education. Addressing these issues—providing content appropriate materials, increasing the time allocated to the curriculum, and ensuring students in day, feel more comfortable with teaching methods adopted, and sexuality education is given—could help to improve the status of school-based sexuality education.

### Conclusion

There is both a need for and the support for comprehensive school-based sexuality education. Professionals agree that programs need to cover the scope of human sexuality, issues, address the cognitive, affective, and behavioral learning domains, work with parents and community resources, and not only aim to prevent STD/HIV and unwanted pregnancy, but promote sexual health. Evaluation of sexuality programs has demonstrated they can be effective in increasing knowledge and promoting behaviors that reduce the likelihood of negative consequences associated with risky sexual behavior.

State and district recommendations and mandates for school-based sexuality education has increased tremendously in recent years. Although the depth and nature of student learning sexuality education have varied greatly, it appears the majority of schools are providing a base-level of sexuality education for students. However, much more remains. Controversial topics and those pertinent to the prevention of STD/HIV and unwanted pregnancies are often avoided and not presented in a manner conducive to

effectiveness, better sex education is still more, of an emphasis on avoiding the negative consequences of risky sexual activity, rather than promoting healthy sexuality.

In addition to the content, other factors related to implementation need to be addressed. Teacher training needs exist to improve the status of sexuality education. Training can help improve a knowledge base, develop confidence, teacher effectiveness and attitudes toward teaching sexuality. More time needs to be allotted in the curriculum to ensure thorough coverage of topics, and time for skills-building activities. Finally, current and appropriate teaching materials need to be made available.

These conclusions are based on several studies intended to assess different aspects of sexuality education. The four conducted in this decade do not provide an adequate assessment of the current status of sexuality education. Two were on the state of Peru, Japan, and married French-Latin Americans. Another in Indiana, assessed the scope of sexuality education and teacher attitudes. The fourth, a national level study, was intended to assess health education in a whole and only briefly examined sexuality education. A general picture of the status of sexual education was provided, however, none of the research reported in this chapter provided a real picture of sexuality education in the classroom level. Although it is difficult to provide an exact assessment of what is being taught in the classroom, at all, the goal of this study was to present a more comprehensive view of how it ultimately help improve the status of school based sexuality education.

**Grade 24: Sex, Society and Human Development / Comprehensive Sexuality Education Program  
(National Curriculum Framework for 12<sup>th</sup>)**

**Key Concept 1: Human Development**

Reproductive Anatomy & Physiology  
Reproduction  
Puberty  
Body Image  
Sexual Orientation & Gender

**Key Concept 2: Relationships**

Family  
Friendship  
Love  
Dating  
Marriage & Lifelong Commitments  
Parenting

**Key Concept 3: Personal Health**

Values  
Decision-making  
Communication  
Self-Respect  
Responsibility  
Seeking Help

**Key Concept 4: Sexual Behaviour**

Sexuality Throughout Life  
Masochism  
Shared Sexual Behaviour  
Abstinence  
Human Sexual Response  
Factors  
Sexual Dysfunction

**Key Concept 5: Sexual Health**

Contraception  
Abortion  
STIs & HIV Infection  
Sexual Abuse  
Reproductive Health

**Key Concept 6: Society & Culture**

Sexuality & Society  
Gender Roles  
Sexuality & the Law  
Sexuality & Religion  
Discrimination  
Sexuality & the Arts

## CHAPTER 3 MATERIALS AND METHODS

### Introduction

This study assessed the scope and nature of sexuality education in Florida public high schools. It provided information on the scope and nature of information that was presented at sexuality education sessions, and teacher, school, and district variables that were related to implementation of sexuality education. As sexuality education is mandated in Florida, data was used to determine compliance with the Curriculum. In addition to providing valuable baseline data, this information will help improve school-based sexuality education and support for those teaching it. Chapter 3 includes the following sections: (1) subjects, (2) instrumentation, (3) procedures, and (4) analysis.

### Subjects

A 1982 study (Orr, 1982) found that five specialty areas were most likely to include sexuality education teachers—health, health education, family and consumer science (FCS), school nursing, and physical education. A 1989 study used a national sample from the same five specialty areas (Farmer & Seligman, 1989). They found that teachers of health education were most likely to provide sexuality education, with FCS being second most likely. They compared 25% and 23% respectively of the sexuality education teachers. However, there was not more than twice as many physical education



teachers as teachers of health education or any other specialty, no they accounted for the largest proportion (31%) based on the results of these two previous studies, it was decided to survey health education and FCS teachers. In Florida, FCS teachers are also reported to be more likely to teach Life Management Skills (LMS)-Dietary/Lifestyle/HIP, STD Prevention/Specialist, Comprehensive School Health Program, Florida Department of Education, personal communication, November 3, 1999). LMS is a required class for graduation, usually taught in the sixth or seventh grade, and deals with health and wellness education topics. The used education teachers were not chosen based on prior studies that they were least likely to teach sexuality education (Forness & Silverman, 1989).

The subjects for this study were public school teachers teaching sexuality education within grades 6-12. Originally, only required classes were going to be assessed so that baseline information could be established on sexual education education Florida students were provided. However, only 175 teachers reported their class was required, so all sampled surveys were used. A list of all teachers with primary teaching codes "health and wellness and family sciences" for the 1993-1994 school year was obtained from the Florida Department of Education (DOE). Teachers were listed by school and district. Thus, this list did not include all possible teachers responsible for sexuality education. As found in the previous studies cited above, some probably had primary teaching codes/biology/science, physical education, school nursing, and other subjects. This list also contained some teachers that did not teach sexuality education.

Of the sample, 76 respondents answered the survey indicating they were not currently teaching, providing education.

There were a total of 764 health teachers in 27 of the 67 school districts in Florida and 1111 PE teachers in 46 of the 67 districts. It was assumed that the 27 districts with no-based health educators did not have a per capita information was posted on the PCS website in those districts. One district (Charlotte) did not have a full report on information was missing for five health and eight PCS teachers. Finally, the researcher (AW) and ITJ requested. There was no information, and hence no participants, for three other districts (Bradford, Lafayette, Union). All health teachers listed ( $N=774$ ) and a random sample of 14.6 teachers were selected. Using a random number assignment a 20% sample ( $N=381$ ) of PCS teachers was selected. A pilot-test of 18 was administered, nine student teachers and nine teachers. The University of Florida Department of Health Science Education had eight student teacher interns each working with a supervising teaching who either taught health or LMS in a Florida high school. Information on school districts was obtained from the Florida DOE's *Financial Report, Statistical Florida School Districts, FY13-14*, the most recent release available. Information on public school districts was not available from the Florida DOE.

### Instrumentation

Two survey instruments and one assessment instrument were used for this research. The instruments chosen were "Sex Education in the United States," from a national survey by the Alan Guttmacher Institute (AGI) (1983), and "Survey of School

*Sexual Education*” from a state survey by Drs. William Valler and Vincent J. Lundy (1994). These instruments were chosen after reviewing research on school-based sexuality education in the United States. Two similar studies were found in the literature search. Fifteen to 20 years older, these were the only two instruments designed that were found to be suitable for the objectives of this study. The only other national survey used in other sex education studies and was too broad in scope, including numerous health topics (CDC, 1995). The other recent state-level study did not have the survey instrument available for use (Fleming, 1994). A sub-system was replicated from the national instrument, *Sexuality education materials: The instrument is made by Gagnon et al. (1994)*. The three instruments were modified and combined using *Efficient + Total Design Method* (1993). The researcher’s document committee was experts in sexuality education, sex in school health programs, and one in research design and statistical study re-designed the instrument for reduction purposes. In addition, survey questions were taken directly from the above mentioned studies which had already been extensively reviewed by expert panels as described below.

### Sex Education in the United States

This instrument was used in a 1982-83 national survey of school teachers that taught sexuality education. The study reported the frequency of sexuality education in grades 7-12, some topics covered in sexuality education, and institutional and other obstacles that may have impeded instruction. Special emphasis was placed on prevention of pregnancy, sexually transmitted diseases (STDs), and HIV/AIDS as chronic clear

primary school teachers. In this study principal informants are first to conduct statistical data collection.

Survey of the deployment, methodology, and results have reported by Forrester and Selvaratnam (2009). The survey was developed through personal interactions with sexual education, researchers, and education specialists. Four focus group discussions with sexual educationists from public secondary schools in the Northeast and a pilot survey of 200 randomly sampled public school teachers, 40 from each of the five universities formed as the survey, were also used to gather preliminary information. Survey topics were asked questions about themselves, their schools, and their views on whether sexual education should be taught and what topics should be covered at what grade levels. Most detailed questions were asked of those currently providing sexual education (Forrester & Selvaratnam, 2009). No measures of reliability or validity were reported. Patterns of this instrument were used in the current study to measure coverage of abstinence, program, prevention, birth control methods, condoms, and STDs/HIV, determine how sexual education was taught (classroom, informally, none) and assess teacher training and demographics.

### Survey of School Secondary Education

This self-report questionnaire was developed by Drs. William Taylor and Mohammad Teneh and administered to Indian high school teachers in a 1993 survey. The survey contained three sub-part (1) a list of 36 sexuality education topics about which the respondent was asked to indicate whether the topic was included in the sexuality

Admission, geographic assessment instrument, teachers' use about the domains) appears in all three main papers in *Comparative Secondary Education*. It was a questionnaire designed to measure ten related attitudes of the respondents, and 36 questions dealing with demographics, characteristics of the respondent, the respondent's view of support for secondary education at higher classes, and selected characteristics of the host-class and teacher. Questions sought by the respondents. Only the responses measuring whether each of the 36 items were taught and teacher ratings of importance were used in the current research. These 36 items were based on KILGUS's (*Guidelines for Comprehensive Secondary Education*) (1987) described in Chapters 1 and 2. Survey development, methodology, and results were reported by Yarker, Tondle, and Hoffman (in press). The survey was deemed valid because the items were directly from the *Guidelines* which were developed and reviewed by a national panel of experts. No measures of reliability were reported.

### **Secondary Education Curricula: The Consensus Guide**

This guide was developed in an effort to assist teachers, program planners, and administrators in determining whether published secondary education curricula meet the school district's needs (Cochran et al., 1994). The guide identifies key elements of curricula including content, philosophy, skills building strategies, and teaching methods. The skills building and teaching strategies sub-set was used for this research. The skills building strategies sub-set was created based on specific personal and interpersonal skills deemed necessary for healthy secondary. These have been identified by the

and (1) *Qualitative for Comprehensive Analysis*, and through evaluation of previously proposed and the past twenty years. This sub-set was used to determine which sub-set sub-set teachers included the strategy, while teaching strategies related to and whether they actually had used or practice the skills. The teaching strategies sub-set comprised a variety of teaching methods necessary to meet students' learning styles and to provide opportunities for personal and social skills-building (Ogden et al., 1994).

### Data Collection Procedures

The survey and data collection procedures were approved by the University of Florida Institutional Review Board on February 27, 1996. The survey methodology followed Delmon's recommendations in *The Total Design Method* (1978). Contents included a cover letter, the survey booklet, and a pre-addressed, postage-paid return envelope. On February 27, 1996, a pilot survey was sent to the Department of Health Science Education student teacher interns and their supervising teachers (N=18). These non-responding student teachers were followed up by postcard on March 2. The survey was returned. After reviewing comments, a few minor revisions were made. Some wording phrases within questions were reworded and added to emphasize the major elements of some questions.

On March 26, survey packets were sent to the 802 sample subjects. On April 3, a follow-up postcard was mailed to all subjects. On April 23, a follow-up letter including a return and pre-addressed, postage-paid envelope was sent to subjects who had not yet

remained in CTR. Teachers' data were pooled into following categories:  
 none, rather than all used two weeks due to spring break in some districts.

For respondents that indicated they were not teaching sexuality or HIV/AIDS  
 education in grades 9-12, replacements were chosen based on random number  
 selection of 10 replacement surveys were sent for approximately the first half of the  
 study (4), surveys that were returned. Then, specific back after April 16 were not  
 replaced. The replacement surveys were mailed April 9 (N=17) and April 16 (N=24)  
 with follow-up postcards on April 18 and April 23 respectively. A letter of appreciation  
 and a summary of study results were forwarded to each participant who requested them  
 following completion of the study.

### *Analysis of Data*

A total of 333 surveys were mailed. There were 14 in the pilot sample, 300 in the  
 original sample, and 27 in the replacement sample. Of the 14 in the pilot sample, seven  
 of the nine surveys were returned by the teachers, and three of the four were returned by  
 the students/parents. Since the students and teachers returned the survey based on the  
 time class, the students' surveys were not used in data analysis. The seven pilot teacher  
 surveys were used in data analysis, since no major revisions were made in the survey.

Seventy-six of the sample of 300 respondents indicated they were not teaching  
 sexuality education in grades 9-12. Replacement surveys were sent on a weekly basis  
 until April 16, for a total of 27 replacement surveys. In addition, two respondents  
 completed the survey twice, so the two duplicates were omitted by the researcher. Of the

Additional 1,000 87 mm pilot, 76 not working, and two duplicate—were not usable leaving 488 eligible. Of these, 264 completed surveys were received and used for data analysis—90 in pilot, 183 female, and 148 PFS teachers—yielding a 50% response rate.

Quantitative results were calculated for all information gathered. These results were used to answer research questions 1, 2, 3, and 4. An analysis of variance (ANOVA) was used to assess the relation between the number of concepts taught for each of the seven sub-topics and teacher and school/district characteristics. The sub-topics included the scope of curricula, education concepts, classroom concepts, types of health control methods, health control concepts, condom concepts, types of STDs, STD concepts, HIV concepts, skills-building strategies taught, skills-building strategies practiced by students, teaching methods utilized, time spent on instruction, health control, condom, STDs, HIV, and total time. For the ANOVA, the characteristics were used as explanatory variables: years teaching, and years teaching, variables education and two teacher variables were tested for main effects—degree of being teaching assistant/educator, and certification as health or PLS. Two school/district variables were also tested for main effects—the status of the district/zone and the class as required or elective. Post hoc analysis on significant findings was performed using Tukey's Honestly Significant Difference test. These results were used to answer research questions 3 and 4. A regression was used to assess the relation between the above listed sub-topics and continuous district demographics—total number of students, percent female students, percent students on free/reduced lunch, as an indicator of socioeconomic status. These results were used to answer research questions 5





## CHAPTER 4 RESULTS

### 4.1. Content of Sexuality Education in Florida Schools

4.1.1 results focus on the scope and content of sexuality education in Florida public high schools. The results of the study are discussed in three sections in this chapter. The first section, the content of sexuality education in Florida schools addresses the subjects surveyed, the types of communication education brought in, desired materials for sexuality education, and the time spent on sexuality education. The second and third sections are the scope and content of and the factors affecting implementation of sexuality education in Florida schools.

#### Teachers

The subjects for this study were health and fitness and consumer science (PCS) public school teachers teaching sexuality education within grades 9 - 12. The sample for the pilot test was comprised of the University of Florida Department of Health Science student teacher interns and their supervising teachers. There were total of 14 in the pilot sample: nine student teachers and five supervising teachers. After these surveys were returned and necessary changes made, a sample of 300 was sent. These names were obtained from a Florida Department of Education (DOE) list. There were a total of 199 health teachers in 36 of the 67 school districts in Florida and 172 PCS teachers in 63 of

We selected a random sample of teachers listed in 1999 and a random sample of PCS teachers were selected. Using a random number assignment, a 37% sample ( $N=361$ ) of PCS teachers was selected. Seventy-six of these respondents indicated they were not teaching elementary or HIGH SCHOOL education in grades 4-12 during the 1999-00 school year. Eighty-seven surveys were not on a weekly basis in place of these until April 18 for a total of 17.

A total of 345 surveys were sent. 18 prior, 368 in the sample and 17 as replacements. Eighty-seven of these were not eligible. The most student teachers in the pilot were taken out to avoid duplication as they based out on in the same class as their supervising teachers. Two respondents completed the survey twice so these duplicates were omitted. In addition 36 were not teaching secondary HIGH education so 468 respondents remained eligible. Of these 361 surveys were completed yielding a response rate of 98%.

**Demographics.** The majority of the teachers were Caucasian females (68%). Overall, 88% of respondents were female and 84% Caucasian. African Americans accounted for 11%, Hispanic 2%, and Asian/Pacific Islander and bi-racial 1%. The ages ranged from 30-34 (21%) to 60-64 (2%). The majority (79%) were between 35 and 54 years of age. 48% were 35-39 years, 16% 40-44 years, and 16% 45-49 years. The teachers had been teaching for an average of 16 years and teaching education specifically for ten years.

**College preparation.** The most common bachelor level degree was PCS (48%), followed by a combined degree in health/physical education (11%), health education

(80%) and physical education (75%), and other majors comprised the rest of the sample. Almost half (47%) of the teachers also completed a master's degree. Again, of these the most common major was FCS (71%). Health education and school administration comprised 9% and 10%, respectively, of the majors, with a variety of other majors completing the group. Only two teachers (0.7%) reported having a doctoral degree, and 7% having various other certifications, such as Certified Health Educator (CHE), and Professional Diploma. Teacher certification was the most common in FCS (50%), followed by health/physical education (30%), and health (8%).

Teachers (N=174) had an average of 7.16 (s=18.34) undergraduate semester hours of training that specifically prepared them for teaching secondary education, with a range of zero to 80. Seventeen percent (N=44) had no undergraduate training. 75% (N=134) did not respond. Teachers (N=132) had an average of 2.63 (s=1.79) graduate semester hours for the same purpose, with a range of zero to 10. Thirty-one percent (N=42) had no graduate training in this area, and 49% (N=129) did not respond. As the sample was gross in these semester hours estimates, it was assumed that some respondents were overreported the quantity. It does not seem likely that one could receive 80 or 60 semester hours specific to secondary education. Respondents may have estimated total class hours during the semester, rather than semester hours, when one class is generally three. However, since there was not a clear cut off point in the results, it was not possible to make a definitive determination.

**Certification/education.** Teachers (N=176) had a mean of 29.48 (s=17.72) hours of workshops, in-service training, and seminars in date that specifically prepared them for

reported attending, attending half reported attending. The majority of teachers had *never* attended a workshop designed to help with working around education since the end of the last school year. Twenty-seven percent reported they had attended one session in the past school year, 33% attended several times, and less than 2% attended monthly or weekly. Thirty-six percent reported they had *not* attended a workshop designed to help with working around education since the end of the last school year.

**Attitudes.** Teacher attitudes toward secondary education were positive overall. The majority of teachers reported they "were much" (44%) or "somewhat" (32%) interested in teaching secondary education. Only 16% were neutral ("neither like nor dislike") and less than 1% reported they did not like teaching secondary education "too much" or "at all." Almost all (94%) teachers thought it was the appropriate role of the school to teach secondary education.

## Types of Courses

The majority of eligible teachers (80%) indicated they were teaching secondary education that included HIV/AIDS education. Only four percent said their class did not cover HIV/AIDS. Almost twelve percent indicated they were teaching an HIV/AIDS class. Life management skills is required class in Florida high schools, even the class most commonly used as the basis for reviewing the survey (54%). FCS was the next most popular (25%) class, followed by health education (13%). FCS had several classes with a rubric, most commonly, "Child Development" and "Family

1 response (0.1%) to the question given 133 responses indicating they did not indicate where class they found the source on.

Two thirds (67%) of respondents reported their class was required to read a text, with (27%) reported it was an elective course. The remaining 17% did not respond. Grade 10 accounting, sexuality education were most likely to be taught grade (79%) followed by a mixed grade level class (56%), middle grade (17%), elementary (2%) and preschool (1%).

### Mandatory for Content

Just over one third (37%) of teachers reported that it was mandated for them to use a specific sexuality education curriculum and almost one-third (32%) reported that one was suggested. Another one-fifth (21%) said it was neither mandated nor suggested. Fifty-one percent (51%) did not know whether their district mandated or suggested a curriculum or did not respond. Almost all (93%) of those with a mandate suggestion reported it was mandated by the district. Numerous requests were given for the name and publisher of the mandated/suggested curriculum. The most common response were not specific names, but either that the district provided it (11%) or that they did not know the name or publisher (23%).

### Time Spent on Sexuality Education

HEV and STDs received the most coverage in classes. An average of 134 minutes ( $n=116$ ) with a range of time in T28 minutes was spent on HIV and 122 minutes ( $n=90$ )

with *Florida Statute* 1004.12, art. 9 (13). *Guidelines* included more coverage than either both control questions or condoms, with averages of 17 (p=88), 63 (p=10), and 14 (p=88) minutes being spent on each topic respectively. The ranges for these topics were zero to 760, 480, and 400 respectively. However, for each of these topics, less than 15% of the respondents reported greater than 760 minutes for HIV (13.8%), or STDs (10.8%), greater than 120 minutes on abstinence (17.2%), or both control (10.4%), and greater than 30 minutes on condoms (11.2%). About 70% of teachers did not respond to the number of minutes spent on abstinence, education as ranged 11 hours (n=5) with a range of zero to 60 hours. Twenty three percent of respondents spent between 1 and 5 hours on the unit, 20% between 6 and 10 hours, 17% between 11 and 15 hours, 10% between 16 and 20 hours, for a total of 70% spending between 1 and 20 hours. Only 9% spent 20 or 60 hours on the unit, with 18% not responding.

### *The Scope and Nature of Sexuality Education in Florida Schools*

This section addresses the scope of concepts taught, teacher ratings of importance toward the concepts, and compliance with Florida's *Guidelines*. The nature of concepts taught and use of culturally intelligent speakers are also reviewed. Finally, the skills-building strategies, teaching methods, and materials utilized by the teachers are summarized.

### Scope of Concepts Taught

The scope was measured using the 78 concepts with 14 in the SEDC's *Guidelines for Comprehensive Secondary Education Studies* K-12. Teachers were asked to indicate whether or not their state teaching such concepts. An average of 78 concepts (51.3%) were taught with a minimum of seven and a maximum of 36. The segments consistently reported taught were abstinence (99%), decision making (99%), sexually transmitted diseases (97%), communication (96%), values (93%), finding help (92%), love (89%), friendships (88%), masturbation (88%), reproduction (87%), reproductive health (86%), abstinence (84%), body image (83%), puberty (82%), families (82%), sexual identity and orientation (81%), marriage and intimate relationships (81%), sexual abuse (80%), and negotiation (80%). Topics not taught by about three-fourths of teachers included reproductive anatomy and physiology (100%), parenting (76%), genital and sexual (77%), venereal and the media (73%), misconceptions (73%), sexuality throughout the lifespan (70%), gender self (68%), and human sexual response (64%) were taught by more than half of teachers. The most neglected topics were those often considered to be controversial topics such as abortion (40%), sexuality and religion (39%), sexuality and the law (38%), adolescent behavior (35%), diversity (33%), masturbation (34%), drugs (32%), sexual dysfunction (24%), and sexuality and the arts (8%). (See Table 4.1.)

Although 84% of teachers reported that taught sexual identity and orientation, their comments and the Florida definition of this topic lead to the questionable nature of this finding. The *Guidelines* description of the sexual identity and orientation concept,



and it is not enough to assume that young people grow up and do things that suggest that sexually and socially attracted to other people is not technically accurate even though it is related to some specific objectives that sexually address the topic. Thus some of the students completing the survey may have misinterpreted the meaning of the concept. Further discussion follows in Chapter 5.

### **Rated Importance of Concepts**

Teachers were also asked to rate each concept in terms of importance on a scale of "not at all important" (1) to "extremely important" (5). Five items (4-10) of the same were rated toward the extremely important end of the scale having an average score of at least 4.0. Adolescence and STD/HIV were rated highest, averaging 4.97 and 4.96 respectively. These rated toward the "extremely important" end of the scale (4 to 5) included decision making (4.86), values (4.73), communication (4.72), sexual abuse (4.60), finding help (4.49), reproductive health (4.37), contraception (4.32), parenting (4.18), menstruation (4.14), marriage and lifetime commitment (4.14), love (4.14), reproduction (4.12), negotiation (4.11), friendship (4.09), dating (4.11), body image (4.12), families (4.11), puberty (4.09), sexuality and norms (4.07), sexuality throughout the lifespan (4.06), sexual anatomy and physiology (4.02), and sexual identity and orientation (4.02). Those averaging in the higher end of "moderately important" (between 3 and 4) included sexuality and the world (3.96), gender roles (3.82), human sexual response (3.71), sexuality and religion (3.62), sexuality and the law (3.46), abuse (3.46), diversity (3.12), shared sexual behavior (3.02). Those concepts that were

physical aspects of anatomy, including content of *Abstinence First*, included abstinence (34%), sexual (27%), sexual dysfunction (27%), and sexually and the acts (71%) (See Table 4.1).

### Consistency with Florida Department Education Guidelines

The guidelines for sexual education published by the Florida (2010) *Department of Quality, Higher Education and Human Services*, were compared to the 36 concepts of the *SECUS Guidelines for Comprehensive Sexuality Education* which were used to assess the scope of sexual education in the surveys. The *Components* covered 21 of the 36 *Guidelines* concepts. Teachers also covered an average of 21 of the *Guidelines* concepts, however this was not necessarily the same as those covered in the *Components*.

Of the concepts covered in the *Components*, those most likely to be taught by teachers included abstinence (99%), decision making (98%), STDs/HIV (97%), communication (97%), and feeling safe (97%). These were likely to be taught included abstinence (40%), sexuality and the law (38%), sexual/sexual behavior (37%), fertility (37%), and sexual dysfunction (34%). There were seven concepts that were not covered in the *Components* but were covered by one half of teachers. These included values (50%), knowledge (50%), puberty (50%), sexual identity and orientation (33%), reproduction (30%), sexuality and society (27%), and human sexual response (25%). There were four concepts not covered by the *Components*, nor by the majority of teachers. These included sexuality and religion (19%), diversity (12%), masturbation

OPN) and similar, and the area OPN). The remaining topics included in the *Guidelines* were taught by between 60% and 80% of teachers, as noted in the previous section (also Table 4-2).

The above *Guidelines* topics not covered in the Florida Curriculum included physics, sexual identity and orientation, friendship values, negotiation, motivation for non-violent response, sexuality, and concepts, sexuality and religious diversity, and sexuality and the arts. However, in examining the *Guidelines*, one aspect of four of these topics is become more understandable why the *Guidelines* do not include them. The *Guidelines* break down each concept into six sequential messages for five levels: Level 1 is middle childhood and early elementary; Level 2 is middle childhood, upper elementary; Level 3 is early adolescence, middle school/ junior high school; and Level 4 is adolescence, high school. This study covered grades 4-12 on the upper end of Level 3 and Level 4.

Physics, diversity, and sexuality and the media are only briefly/indirectly touched on in Level 3 (through age 13) and not at all covered in Level 4 (15-18 year high school) in the *Guidelines*. The relationship has two objectives at Level 3 and one at Level 4 in the *Guidelines*. In addition, the non-specific wording of the sexual identity and orientation subconcepts described previously helps explain the high percentage (87%) that reported teaching a concept not only included in the *Guidelines*, but one that is considered very controversial at one school. Finally, some objectives related to the relationships (in concepts were defined indirectly into the subconcepts of love, dating, or marriage and intimate communications. Most of the *Curriculum*'s objectives were aligned to those in the *Guidelines*, however sexual was not. Therefore, whether or not the

Contraceptive Methods. Contraceptive methods used by teachers is classified within the Contraception category.

### The Nature of Secondary Education

Abstinence. Thirty-one percent of respondents did not teach abstinence, only one to five, and remained pregnant, and STDs. 41% (39%) taught that it was the best way to prevent AIDS. Twenty percent taught students how to insert male condoms to have sexual intercourse and 41% knew to use one in a period. The negative consequences of sexual intercourse were taught by 46%. An average of 4.66 (32%) of the 5 abstinence related concepts were taught by teachers.

Questions/Questions. Ninety-two percent taught abstinence as a method of preventing unwanted pregnancy. Both control methods were taught as an option by 41% of teachers and 11% reported both control methods were covered in other content on the same grade(s) they taught. Twenty-eight percent said they would answer questions about birth control only if a student initiated a question, 41% answered on one lesson after class, 33% had students submit questions anonymously on a slip of paper, and 41% answered questions in class.

Birth Control Methods. An average of 7.10 of the 10 birth control methods were taught by teachers. At least half of respondents included the birth control pill (80%), diaphragm (61%), spermicide (59%), minipill/mini-pill (56%), implant (50%), female condom/skin sheath (32%) and the female condom (30%). A little less than half taught withdrawal (49%), cervical cap (46%), and abstinence (32%).

10th, many denied it (commentary suggests how hard it is to teach homosexuality-related

1011 It is to be said that. Specifically, commentary 10's finding accepted more prevalent by 29 (31%)  
 1012 teacher. Only, however, nine percent actually claimed the discussion to have occurred. Half  
 1013 1014 of subjects taught students how to discuss controversial subjects with a partner. Of  
 1015 the five teachers denied teaching with half (40%) were taught on average by teachers.

1016 Conclusion. Almost half (49%) of teachers described the proper way to use a  
 1017 condom and 40% showed the proper way to use one through physical means (film or  
 1018 demonstration). Again, four percent taught condoms should be put on before any vaginal  
 1019 contact in the penis. Fifty-seven percent demonstrated condoms as a means of preventing  
 1020 pregnancy and 77% as protection for STDs/HIV. Conclusion about the condom, such as  
 1021 decreased sexual pleasure and/or lack of spontaneity were addressed by 40% of teachers  
 1022 and 10% taught that condoms should always be used with a partner. On average, just  
 1023 over half (49%) of the seven condom items were taught by teachers.

1024 STDs/HIV. An average of 9.11 of the 10 types of STDs were covered in sexually  
 1025 education classes. At least one out of ten teachers taught HIV (49%), chlamydia (60%),  
 1026 genital herpes (60%), gonorrhea (60%) and syphilis (60%). Over half taught genital  
 1027 warts (81%), pelvic inflammatory disease (77%), anal sex (74%) and hepatitis B (70%).  
 1028 Forty-two percent taught about STDs, however, few indicated specifically which these  
 1029 were. Only 3% of those providing lesson materials reported not teaching anything  
 1030 about STDs/HIV.

1031 Nearly three percent of teachers taught how HIV is transmitted, 30% the signs of  
 1032 HIV and 51% the effects of HIV. Abstinence was taught as a method of HIV prevention

for 80% management by 81%, and clinical care by 82%. Clinical matters for learning and help with HIV were provided by 79% of teachers, and issues about confidentiality were discussed by 89%. Regarding other STDs, 88% of teachers taught about transmission routes, 87% about signs of STDs, and 89% about the effects of them. Abstinence was taught as a method of protection by 89%, emergency by 87% and condoms by 80%. The nature of clinical learning and resources of STDs were provided by 87% of teachers and 78% discussed confidentiality issues. Averages of 7.62 of the 8 concepts (89%) related to HIV and 6.82 of the eight (87%) concepts related to STDs were taught by teachers.

### Student Referrals

For help with birth control, teachers were most likely to refer students to parents (87%), local family planning clinic/health department (87%), or a family doctor (80%). They were less likely to send them to a school nurse (39%) or guidance counselor (22%). Students who needed help with HIV/AIDS were most likely to be referred to a family doctor (61%), local family planning clinic/health department (57%), or parents (31%). They were less likely referred to a school nurse (17%) or guidance counselor (28%). For help with other STDs, teachers were most likely to refer students to a local family planning clinic/health department (57%), family doctor (56%) or parents (38%). They were again less likely to refer to school nurse (17%) or guidance counselor (28%).

## Guest Speakers

The use of guest speakers from an outside organization was much more common than use of speakers from within the school, especially for BSWAIDS (10% versus 30%), and HTDs (48% versus 17%). Almost one third of teachers brought in guest speakers for education (14%), both sexual (23%) and condoms (23%). Guest speakers from within the school were utilized by less than one sixth of teachers for the topics of education (23%), both sexual (14%) and condoms (12%).

## Skills-Building Activities

A wide variety of skills-building activities were taught by the majority of teachers. Half of the 14 items were incorporated by an average of nine out of ten or more teachers. These included identifying consequences of decisions (79%), increasing self-esteem/building self-esteem (82%), examining influences on decisions (88%), building decision-making skills (82%), examining process of STD/HIV risks (82%), building planning/good writing skills (80%), and examining personal values (80%). Both sex-upto and more out of ten identified community resources (86%), examined process of pregnancy risks (82%), and taught general communication (49%), physical (82%), and environment (81%) skills. Slightly less than three-quarters teach conflict management skills (73%) and addressed poor works (71%).

Actually having students practice these skills in class was reported less often by teachers. Teachers taught an average of 12/14 (86%) of the 14 different skills activities, but only had students practice 8/14 (57%) of the 14 skills. At least one-third of teachers

quantified students engage in activities to identify consequences of decisions (77%) compare influences on decisions (76%) measure and determine/hold self account (73%) make ethical decision-making (75%) planning/prioritizing (69%) and general ethical/morality skills (72%). Higher level individuals measure personal values (88%) and personal STIMULI risks (89%) and practice ethical (88%), assess costs (87%) and conflict management skills (85%). Low tier half of teachers had students address plan/execute (48%) identify constraints/resources (48%) and measure personal performance risks (47%).

### Teaching Methods

The teaching methods most commonly employed were lecture format (95%) and/or read materials (91%) student has lab/ethics (81%) and large group discussion (80%). Case studies (81%) cooperative learning/small groups (74%) and general rules (68%) were also used by many instructors. For k is used as anonymous-question box (48%) journals/diary writing (38%) a peer helper computer (28%) as parent/guardian as observer (19%). Sixty-five percent of the 11 methods were used on average by teachers.

### Course Materials

Teachers were asked what curriculum/materials they used in their classrooms. A community available curriculum, a text materials, and/or other sources. Teachers' most common response was that they created their own materials (59%). One fifth (20%)



reporting a published curriculum and 14% more than 10 other sources. Another

11 reported using a combination of several materials and other sources. Using a combination of a published curriculum and limited materials, a published curriculum and other sources, or a combination of all three sources were each reported by 2% of respondents. A wide range of publishers was reported, off-invention being given by less than 1% of the respondents. The "other sources" specified also covered a range of responses. The most common was materials provided by the school district (11%). The rest of the responses were each reported by less than 1% of the respondents.

These responses included materials such as community resources/speakers, news articles, videos, example lesson plans, and pamphlets/information from local business organizations.

There were a variety of textbooks used by the teachers. Most commonly they used a general health, life management skills, or making choices text book (44%). Some reported using more specific human sexuality/interpersonal health (7%) or child development (9%) texts. Almost one-third of teachers (29%) did not respond to this question.

### **Factors Effecting the Implementation of Sexuality Education**

In order to examine the relation between the scope and nature of sexuality education and teacher and student demographics and classroom demographics, several sub-scales were created from the survey to be used as dependent variables. The number of years teachers reported teaching in each of the sub-scales were totaled to provide a measure of the depth of information covered in each area. Totals were calculated for each

represented by all domains/ sub-domains/ concepts of knowledge education taught (Q21-Q28 N=10), scope/ taught/ substance (Q34-Q35 N=10), methods of test/ control (Q41-Q43 N=3), Both Casual Methods/ how both control methods were taught (Q42, N=3 Both Control Concepts/ how random ways taught (Q40 N=7 Control Concepts) type of STDs HIV (Q44 N=10 Types of STDs) how STD was taught (Q42 N=3 HIV Concepts) how other STDs were taught (Q42 N=8 STD Concepts) skills building activities taught (Q48 N=14 Skills Taught) skills building activities provided by students (Q48 N=14 Skills Practiced) and teaching methods utilized (Q49 N=12 Teaching Methods) (see Table 4-3). There was no weighting given to topics that might be considered more or less important. Estimated time in minutes spent reading each of substance, both control, condoms, STDs, and HIV, and total amount of time to learn spent on the curriculum education unit were also used as dependent variables for comparisons. This series of 17 dependent variables was used for all analyses of variance and multiple regression.

Analysis of variance was conducted for all of the dependent sub-scales and time estimates listed above. Age, race, gender, total years reading, and years reading scripture education were used as covariates, and degree of living loneliness, sexual education acquired in classes/course, consultation to health or FCB, and the status of the curriculum as mandated, suggested, neither or not even were tested as main effects. Tukey's Honestly Significant Difference test was used for post-hoc analysis. The district variables- total number of students, percent minority students, and percent of students on free or reduced lunch- were tested using multiple regression with the dependent sub-

relationships (Pearson's  $t$ -test). Additionally, a  $t$ -test is also conducted to test the relationship between teacher ratings of importance and whether or not a concept was taught.

### Teacher Attitudes

Teacher attitudes toward the concepts presented in the scope of secondary education was positive in general as reported earlier. Most concepts were rated toward the extremely important end of the scale. Items rated lower tended to be those considered content level. Using a  $t$ -test, a positive relation was found between rated importance and whether or not a concept was taught in class. The average rating for a concept's importance was significantly higher ( $P < .01$ ) for those teaching the concept than for those not teaching the concept for all items except one. For decision making, only one person reported not teaching it and they rated it extremely important (2). Hence no significant difference was found in rated importance. (See Table 4-1.)

Teacher attitudes toward how much they liked teaching secondary education was the factor most consistently related to its implementation at the classroom level. An analysis of variance found a significant difference in the average number of items taught on each of the sub-scales, as well as two of the average class estimates, as related to the teachers' ratings of how much they liked teaching secondary education. The sub-scales included the scope of concepts taught ( $P < .01$ ,  $F = 4.37$ ), health-related methods ( $P < .00$ ,  $F = 8.73$ ), health-related concepts ( $P < .00$ ,  $F = 13.31$ ), academic concepts ( $P < .00$ ,  $F = 14.65$ ), types of STDs ( $P < .00$ ,  $F = 6.39$ ), HIV concepts ( $P < .01$ ,  $F = 4.45$ ), STD concepts ( $P < .01$ ,  $F = 5.37$ ) and teaching methods-related ( $P < .00$ ,  $F = 1.21$ ). Differences in the

combined (high school teaching method) (test scores) ( $F(2, 12) = 4.13$ ) and random ( $F(2, 12) = 4.13$ ) (avg) ( $F(2, 12) = 4.0$ ).

Follow-up using Tukey's Honestly Significant Difference Test, found that those who reported they "very much" liked teaching sexuality education taught significantly more, were on average than those who "somewhat" and "neither liked nor disliked" taught for the topics: both correct methods, both correct concepts, random concepts (yes or SIDs), teaching methods (allied), and time spent on condoms. For the HIV and STD concepts, those who reported they "very much" liked teaching taught more on average than those who only "somewhat" liked teaching. The time spent on both correct methods, those who reported they "very much" liked teaching reported significantly more sexual science than those who "neither liked nor disliked" teaching sexuality education (See Tables 4.2 and 4.3).

### Teacher Certification

Teacher certification in health or PCS was significantly related to the number of concepts taught in two sub-scores and the time spent on two topics. PCS teachers taught significantly more both correct methods ( $P < .01$ ,  $F = 5.24$ ) an average of 3.9 while health teachers taught an average of 3.2. PCS teachers also taught significantly more of the both correct concepts on average ( $P < .01$ ,  $F = 6.85$ ) 2.6 versus 1.9. (See Table 4-4)

Of the teachers certified in PCS, 39% (31-66) taught science courses, and 61% (50-72) taught required classes. Of those certified in health, less than 3% (3-12) taught science courses, and 97% (84-95) taught required classes. The distribution was

significantly different from the expected value using a Chi-Square Test ( $P < .05$ ). It is possible that the significantly greater emphasis on both control for PCB teachers might be better explained by whether the class was required or elective rather than by teacher certification. There were similar findings with regard to both control methods and concepts when required and elective classes were compared. These findings are discussed below.

### District Secondary Education Curriculum

Whether a curriculum was mandated, suggested, neither an endorsement, and whether or not the class was required or elective were used as independent variables to determine relations to what was taught in classes. The status of the district secondary education curriculum committee had a significant effect on the number of items taught in three of the sub-scales and the time spent on one topic. There were the scope of items taught ( $P < .04$ ,  $F = 3.7$ ), both control methods taught ( $P < .01$ ,  $F = 3.96$ ), teaching methods utilized ( $P < .02$ ,  $F = 3.46$ ), and time spent on both control methods ( $P < .04$ ,  $F = 2.87$ ) (see Table 4-4).

Follow-up tests using Tukey's Honestly Significant Difference found that respondents who reported the secondary education curriculum was mandated spent significantly more time on both control than did those who reported it was neither suggested nor mandated, 57.3 versus 33.3 minutes. Data from who reported it was mandated and suggested used more teaching methods on average than those who reported it was neither mandated nor suggested, 7.5, 7.4 and 6.3 methods respectively. In the post

the present research, a difference is observed between the groups and the number of both control concepts taught at the non-IBSE class taught in the scope of Tables 4-3 and 4-6 :

#### Expected Learning Objectives

The statistical analysis on expected objectives also had a significant effect on the number of concepts taught in a total of the sub-grades and the time spent on some topics. These teaching objectives classes reported teaching more items in a scope for the scope of some topics ( $PB = 69$   $P = 0.04$ ) : 28 in versus 24 in both control methods ( $PC = 94$   $P = 0.40$ ) : 6.7 in versus 4 in both control concepts ( $PC = 64$   $P = 0.56$ ) : 2.8 versus 3.2. There are expected classes taught in a scope of 7.3 IBSE concepts versus 6.1 ( $PC = 88$   $P = 0.28$ ) and 6.8 STD concepts versus 5.2 in elective classes ( $PC = 68$   $P = 0.00$ ). They also reported spending on a scope of 177 minutes on IBSE versus 89 ( $PC = 64$   $P = 0.14$ ) and 162 minutes on STDs versus 70 minutes in elective classes ( $PC = 65$   $P = 0.01$ ). (See Table 4-4.)

#### Descript Demographics

Multiple regression analysis was used to determine the relation between the scope and nature of scientific educational district demographics. The dependent variables used were those previously listed (See Table 4-3). The independent cluster variables used were total number of students, percent white students, and percent students on free/reduced lunch as an indicator of economic status of the district.

As the total number of students increased, there was a decrease in the number of both control methods taught, both control concepts taught, random-concepts taught, and teaching methods utilized. There was also a decrease in the amount of time spent teaching algorithms, both control methods and randoms, and total amount of time spent teaching.

As the percent of white students in a district increased, so did the number of both control methods taught, both-control concepts taught, and random-concepts taught. There was also an increase in the amount of time spent on both control methods, randoms, and total time teaching.

As the percent of students on free/reduced lunch increased, so did the number of items in the range of concepts taught, both control methods taught, both control concepts taught, random concepts taught, and teaching methods utilized. There was also an increase in the amount of time spent teaching algorithms, both control methods, randoms, and total time teaching. (See Table 4-1.)

**Table 4-1: Scope of Sexuality Education - Rated Importance in Relation to What is Taught**

Concept	Average Overall Importance	Results		Adjusted Importance	
		N	%	Overall	Not Taught
Abstinence	4.83	708	98.8	4.97	4.33
STDs/HIV	4.86	233	97.1	4.97	4.69
Decision Making	4.86	233	98.9	4.88	5.00
Values	4.73	243	90.1	4.77	4.39
Communication	4.73	248	99.8	4.73	4.89
Sexual Abuse	4.61	211	88.8	4.71	4.89
Feeling Safe	4.69	241	92.3	4.67	4.60
Reproductive Health	4.93	211	84.7	4.68	5.86
Contraception	4.52	187	71.8	4.67	4.85
Parenting	4.56	199	79.2	4.61	4.87
Assessment	4.40	220	88.1	4.32	5.82
Marriage & Lifetime Commitments	4.44	211	80.8	4.21	5.94
Love	4.64	223	89.3	4.23	5.60
Reproduction	4.40	226	88.8	4.27	5.70
Negotiation	4.34	209	80.1	4.31	5.39
Friendship	4.28	229	87.7	4.41	5.31
Desire	4.18	209	83.9	4.22	5.34
Body Image	4.12	206	82.8	4.28	5.38
Family	4.11	219	87.4	4.31	5.68
Privacy	4.08	203	81.4	4.23	5.47
Sexuality & Society	4.07	180	72.8	4.28	5.49
Sexuality Throughout the Lifespan	4.00	183	70.1	4.36	5.30
Sexual Anatomy, & Physiology	4.00	282	77.4	4.20	5.29
Sexual Motives & Orientation	4.00	202	81.2	4.13	5.33
Sexuality & Media	3.98	181	71.2	4.24	5.04
Gender Roles	3.92	174	68.7	4.04	5.68
Sexual Response	3.79	144	55.2	4.07	5.68
Sexuality & Religion	3.40	181	38.7	5.99	5.60
Sexuality & Law	3.48	88	37.5	5.84	5.83
Abuse	3.34	184	39.8	5.81	5.99
Gender	3.12	80	31.8	5.80	5.71
Good Sexual Behavior	3.00	93	33.6	5.78	5.27
Misinformation	2.80	70	28.3	5.88	5.43
Power	2.70	88	34.9	5.82	5.46
Sexual Dysfunction	2.78	60	38.1	5.43	5.58
Breeding & Arts	2.10	20	88.8	5.29	5.82



**Table 4-B: Objectives of Florida's Components of Quality HIV/STD Prevention & Sexual Health Education Compared to the Concepts and Objectives of NACW's Guidelines for Comprehensive Sexuality Education**

NACW's Guidelines	# of Guidelines Objectives		# of Concepts Objectives	% Alignment (meeting the Concept)
<b>Key Concept 1: Human Development</b>	Level 1	Level 2	Goal 1 (C)	
1. Reproductive Anatomy & Physiology	02	6	2	75.0
2. Reproduction	08	6	4	88.9
3. Puberty	08	6	6	87.5
4. Body Image	04	2	2	87.5
5. Sexual Maturity and Orientation	13	3	6	80.0
<b>Key Concept 2: Relationships</b>				
1. Families	18	4	3	83.3
2. Friendship	02	1	6	83.3
3. Love	08	6	2	85.0
4. Dating	11	2	1	81.8
5. Marriage & Lifetime Commitments	14	2	9	85.7
6. Parenting	08	4	2	75.0
<b>Key Concept 3: Personal Skills</b>				
1. Values	05	3	6	90.0
2. Decision Making	13	3	4	96.9
3. Communication	18	2	1	94.4
4. Assertiveness	14	2	1	85.7
5. Negotiation	06	2	6	88.9
6. Finding Help	08	2	2	92.3
<b>Key Concept 4: Sexual Behavior</b>				
1. Sexuality Throughout the Lifespan	02	18	2	78.6
2. Masturbation	02	02	6	28.6
3. Shared Sexual Behavior	05	03	1	33.3
4. Abstinence	18	04	2	94.4
5. Human Sexual Response	04	03	6	93.3
6. Fertility	03	04	2	50.0
7. Sexual Decision-Making	02	02	4	50.0
<b>Key Concept 5: Sexual Health</b>				
1. Contraception	13	4	02	76.9
2. Abortion	12	4	03	58.3
3. Sexually Transmitted Diseases/ HIV	34	1	13	97.3
4. Sexual Abuse	12	2	02	83.3
5. Reproductive Health	18	6	02	84.4

**Table 4-6. Continued**  
**SDCLB Subscales**

<b>Key Concepts, Issues, and Culture</b>	<b># of Questions</b>		<b># of Component Questions</b>	<b>% Respondents Meeting the Criteria</b>
	<b>Level 1</b>	<b>Level 2</b>	<b>Grade 5-12</b>	
1. Sexuality and Society	3	3	8	72.4
2. Gender Roles	3	4	3	66.7
3. Sexuality and the Law	8	8	4	57.3
4. Sexuality and Religion	3	3	0	58.7
5. Divorce	3	0	0	31.8
6. Sexuality and the Arts	1	3	0	66.0
7. Sexuality and the Media	3	0	1	73.2

**Table 4-8 Series of Variables Used for ANOVAs and Multiple Regression**

<i>Dependent Variables</i>			
Concept Measured	Question	# of Concepts	Key Words Used in Tables
Scope of sexuality education taught	Q33A	34	Scope Taught
Abstinence concepts taught	Q34	83	Abstinence
Methods of birth control taught	Q40	40	Birth Control Methods
How birth control was taught	Q42	83	Birth Control Concepts
How condoms were taught	Q43	81	Condom Concepts
Types of STDs/HIV taught	Q44	40	Types of STDs
How HIV was taught	Q45	88	HIV Concepts
How other STDs were taught	Q46	88	STD Concepts
Skills teaching, active role taught	Q48	14	Skills Taught
Skills teaching, scenario presented	Q48	14	Skills Presented
Teaching scenario involved	Q49	17	Teaching Methods
Time spent teaching abstinence	Q58	N/A	Time on Abstinence
Time spent teaching birth control	Q59	N/A	Time on Birth Control
Time spent teaching condoms	Q60	N/A	Time on Condoms
Time spent teaching STDs	Q61	N/A	Time on STDs
Time spent teaching HIV	Q62	N/A	Time on HIV
Total time on sexual education	Q63	N/A	Total Time

*Independent Variables*

Concepts	Key Words Used in Tables
Type of Respondent	Age
Race of Respondent	Race
Sex of Respondent	Sex
Years Teaching Sex Education	Years
Total Years Teaching	Years
Mean Effects	
Score of Control Variable	Ctrl
Degree of Likely Teaching Sexually Educated	Likely
Respondent Educated Course	Edu
Confidence of Respondent	Conf

*Control Variables*

Percent of White Students in District	% White
Total Number of Students in District	Total N
Percent of Students in District on Free or Reduced Lunch	% Free/Red

Table 4-4 Analysis of Variance

Dependent Variable: *Drop, Tons/Truck*

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig. of F
Correction	40.662	5	8.1324	4.463	.022
Age	38.276	1	38.276	8.208	.011
Race	46.112	1	46.112	10.022	.011
Sex	11.232	1	11.232	2.487	.146
Years	36.692	1	36.692	8.168	.012
Years <sup>2</sup>	36.692	1	36.692	8.008	.015
Mean Effects	1978.568	7	282.639	2.866	.001
Car	5523.489	3	1841.163	2.748	.044 <sup>a</sup>
Like	5588.328	2	2794.164	4.472	.020 <sup>a</sup>
Reg	5576.958	1	5576.958	8.328	.012 <sup>a</sup>
Car <sup>2</sup>	5584.549	1	5584.549	8.369	.016
Explained	1136.087	812	1136.087	2.712	.001
Residual	7272.058	182	40.011		
Total	8408.145	184	45.702		

Dependent Variable: *Aluminum Cans/Case*

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig. of F
Correction	4.188	5	0.8376	1.216	.304
Age	1.322	1	1.322	1.958	.182
Race	0.677	1	0.677	1.028	.312
Sex	1.688	1	1.688	2.804	.103
Years	0.904	1	0.904	1.318	.249
Years <sup>2</sup>	0.828	1	0.828	1.216	.272
Mean Effects	1.429	7	0.204	0.216	.934
Car	0.398	3	0.133	0.138	.999
Like	0.802	2	0.401	0.294	.922
Reg	1.161	1	1.161	1.718	.192
Car <sup>2</sup>	0.797	1	0.797	1.180	.279
Explained	806.300	812	817	763	.000
Residual	122.849	182	0.675		
Total	929.149	184	5.049		

Table 4-4 Continued

Dependent Variable: Black Control Concepts

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig. of F
Corrected	68.714	4	17.177		
Age	37.408	1	37.408	0.462	.498
Race	17.807	1	17.807	0.227	.630
Sex	14.694	1	14.694	0.187	.672
Years	30.188	1	30.188	0.378	.535
Total	23.966	1	23.966	1.716	.246
Model Effects	701.218	3	233.739		
Cur	492.499	1	492.499	40.943	.000 <sup>a</sup>
Like	166.401	1	166.401	13.627	.000 <sup>a</sup>
Req	142.862	1	142.862	11.829	.001 <sup>a</sup>
Con	99.456	1	99.456	8.124	.005 <sup>a</sup>
Explained	6814.454	447	15.245		
Residual	2948.510	182	16.201		
Total	19823.964	249			

Dependent Variable: Black Control Concepts

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig. of F
Corrected	28.201	3	9.400		
Age	30.402	1	30.402	1.408	.241
Race	11.836	1	11.836	0.571	.451
Sex	30.830	1	30.830	1.475	.228
Years	30.091	1	30.091	1.438	.232
Total	30.403	1	30.403	1.351	.248
Model Effects	121.274	3	40.425		
Cur	61.744	1	61.744	21.108	.000 <sup>a</sup>
Like	362.808	1	362.808	123.310	.000 <sup>a</sup>
Req	319.329	1	319.329	105.071	.000 <sup>a</sup>
Con	81.492	1	81.492	26.924	.000 <sup>a</sup>
Explained	340.345	447	0.761		
Residual	246.881	182	1.357		
Total	587.226	249			

Table 4-4: Continued

Dependent Variable: *Consumer Expenditure*

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig.
Corrected	6 825	3	2 275	158	.000
Age	6 815	1	6 815	175	.000
Sex	2 277	1	2 277	168	.000
Sex	6 936	1	6 936	195	.000
Years	1 337	1	1 337	280	.000
Years	6 228	1	6 228	678	.000
Mean Effects	377 868	7	53 981	64,000	.000
Constant	601 557	3	200 519	60 234	.000
Like	108 339	3	36 113	28 691	.000
Req	685 133	1	685 133	61 180	.000
Cost	685 636	1	685 636	61 680	.000
Explained	365 006	643	25 423	3 458	.000
Residual	648 879	187	3 469		
Total	1153 948	794	65 948		

Dependent Variable: *Types of CDEs*

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig.
Corrected	34 895	3	11 631	3 488	.000
Age	35 197	1	35 197	6 747	.000
Sex	47 882	1	47 882	6 176	.000
Sex	68 748	1	68 748	6 108	.000
Years	68 863	1	68 863	6 008	.000
Years	65 854	1	65 854	6 800	.000
Mean Effects	138 177	7	19 739	3 673	.000
Constant	685 410	3	22 847	6 261	.000
Like	685 798	3	22 859	6 384	.000
Req	688 378	1	688 378	3 164	.000
Cost	688 598	1	688 598	6 238	.000
Explained	688 113	643	17 406	3 384	.000
Residual	138 773	183	7 583		
Total	1475 848	794	67 687		

Table 6-4 Continued

## Dependent Variable: FPI Conversion

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig. (p-Value)
Age	68.912	1	68.912	8.558	.002
Race	68.549	1	68.549	8.514	.002
Sex	68.888	1	68.888	8.565	.002
Years	68.544	1	68.544	8.514	.002
Total	64.000	1	64.000	7.991	.008
Model Effects	81.768	7	11.681	64.101	.000
Constant	81.812	1	81.812	68.279	.000
Error	21.948	2	10.974	64.448	.000*
Residual	18.400	1	18.400	17.381	.000*
Total	64.000	1	64.000	60.224	.000
Explained	113.140	812	9.438	1.253	.000
Residual	108.814	882	1.233		
Total	64.000	894	1.233		

## Dependent Variable: STS Conversion

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig. (p-Value)
Age	60.812	1	60.812	6.882	.001
Race	60.547	1	60.547	6.856	.001
Sex	61.516	1	61.516	6.991	.001
Years	60.818	1	60.818	6.883	.001
Total	61.179	1	61.179	6.857	.001
Model Effects	186.448	7	26.635	68.277	.000
Constant	671.902	1	671.902	61.218	.000
Error	652.798	2	326.399	68.874	.000*
Residual	662.900	1	662.900	18.812	.000*
Total	608.810	1	608.810	60.126	.000
Explained	614.648	812	14.937	1.182	.000
Residual	694.817	882	6.503		
Total	1140.465	894	6.503		

Table 4-1 (Continued)

Dependent Variable: *Wally Bought*

Source of Variation	Sum of Squares	df	Mean Square	F	Sig. of F
Corrected	59.864	5	11.973	1.408	.375
Age	34.975	1	34.975	4.795	.044
Sex	61.965	1	61.965	8.238	.005
Size	65.868	1	65.868	8.749	.004
Years	68.484	1	68.484	9.045	.004
Total	69.822	1	69.822	8.976	.005
Mean Effects	148.442	5	29.688	2.548	.046
Car	64.835	3	21.612	1.665	.176
Like	648.849	2	324.424	2.658	.073
Buy	619.850	1	619.850	5.418	.022
Get	608.738	1	608.738	5.375	.029
Explained	6764.278	602	11.236	1.067	.003
Residual	1494.548	182	82.118		
Total	1749.218	184	95.066		

Dependent Variable: *Wally Proceeded*

Source of Variation	Sum of Squares	df	Mean Square	F	Sig. of F
Corrected	313.864	5	62.773	3.925	.023
Age	64.461	1	64.461	3.857	.062
Sex	668.926	1	668.926	40.893	.000
Size	683.372	1	683.372	42.534	.000
Years	655.842	1	655.842	40.468	.000
Total	688.605	1	688.605	42.483	.000
Mean Effects	152.378	5	30.476	1.933	.118
Car	685.163	3	228.388	1.538	.348
Like	618.894	2	309.447	2.072	.025
Buy	608.446	1	608.446	4.066	.046
Get	618.628	1	618.628	4.119	.046
Explained	6987.388	612	11.419	1.048	.002
Residual	1457.679	182	80.092		
Total	1144.718	184	62.213		



Table 4-4-4, continued

Dependent Variable: Trucklog\_Milehour

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig.
Corrected	171084	2	73491	0.734	.583
Age	871548	1	73488	1.876	.169
Race	821123	1	73122	0.473	.489
Sex	882998	1	88299	0.291	.588
Years	411671	1	41167	0.201	.349
Total	684008	1	68400		.996
Model Effects	114008	7	16286	3.623	.001
Cur	648457	3	12948	3.455	.018*
Like	648898	3	12949	3.393	.008*
Reg	881487	1	88148	0.308	.585
Con	888654	1	88865	0.148	.701
Explained	113788	812	12884	3.818	.001
Residual	518788	182	28499		
Total	978446	194	50482		

Dependent Variable: Time on theJob

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig.
Corrected	14861482	5	2972296	2.368	.043
Age	28787357	1	28787357	4.948	.034
Years	64182698	1	64182698	0.603	.437
Sex	69811982	1	69811982	0.297	.578
Race	88258389	1	88258389	0.841	.368
Reg	21144118	1	21144118	0.268	.609
Model Effects	33683361	7	4811908	7.77	.001
Cur	61278848	3	20426282	8.57	.001
Like	82182681	3	27394227	7.98	.001
Reg	88877375	1	88877375	8.1	.012
Con	84468518	1	84468518	7.83	.003
Explained	818847738	812	971462	1.458	.148
Residual	1681739682	182	9239833		
Total	1841896548	175	10525123		

Table 4d. Continued

Dependent Variable: *Learning Journal Content*

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig. of F
Corrected	19341.563	7	2763.081	3.600	.007
Age	6668.081	1	6668.081	8.657	.007
Years	6649.081	1	6649.081	8.657	.007
Years <sup>2</sup>	6642.796	1	6642.796	8.660	.007
Race	14608.124	1	14608.124	4.808	.044
Sex	61734.752	1	61734.752	8.488	.007
Main Effects					
Corrected	79067.111	7	11295.302	3.365	.004
Age	30594.377	2	15297.188	2.812	.039*
Like	79487.946	2	39743.973	8.120	.000*
Reg	64012.446	1	64012.446	1.124	.291
Corrected	66895.025	1	66895.025	1.956	.169
Explained	66424.054	682	8567.988	2.478	.003
Residual	26766.644	163	1642.125		
Total	93190.697	175	5325.183		

Dependent Variable: *Team as Condition*

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig. of F
Corrected	4276.523	7	610.932	0.724	.608
Age	4790.781	1	4790.781	0.241	.624
Years	6833.380	1	6833.380	0.047	.830
Years <sup>2</sup>	6833.721	1	6833.721	0.086	.778
Race	2724.926	1	2724.926	1.207	.326
Sex	6861.216	1	6861.216	8.088	.005
Main Effects					
Corrected	56277.294	7	8039.613	2.489	.019
Age	62994.483	2	31497.242	1.758	.181
Like	59864.821	2	29932.411	4.218	.019*
Reg	60262.181	1	60262.181	8.217	.002
Corrected	61411.129	1	61411.129	8.928	.001
Explained	36735.387	812	4522.824	1.868	.045
Residual	196747.980	163	1207.043		
Total	233483.366	175	13347.619		

Table 4-4. Continued

Dependent Variable: Time on ADT

Source of Classroom	Sum of Squares	df	Mean Square	F	Sig. of F
Corrected	74117.330 <sup>a</sup>	2	37058.664	1.371	.237 <sup>b</sup>
Age	68340.832	1	68340.832	0.007	.934
Years	11464.478	1	11464.478	1.826	.173
Years <sup>2</sup>	68884.831	1	68884.831	0.008	.936
Sex	15889.148	1	15889.148	1.297	.152
Sex <sup>2</sup>	18131.869	1	18131.869	1.696	.208
Mean Effects	167857.271	7	23979.602	2.121	.044
Case	603899.634	2	301949.818	8.713	.000
Like	650665.440	2	325332.720	9.368	.000
Reg.	668126.189	1	668126.189	6.157	.014 <sup>c</sup>
Con	618895.234	1	618895.234	6.974	.009
Explained	6164368.831	832	30361.750	2.718	.000
Residual	1823178.927	168	10852.256		
Total	2186535.777	175	12494.496		

Dependent Variable: Time on STDs

Source of Variations	Sum of Squares	df	Mean Square	F	Sig. of F
Corrected	60317.048	2	30158.524	1.113	.323
Age	87644.328	1	87644.328	1.176	.280
Years	82388.317	1	82388.317	0.375	.541
Years <sup>2</sup>	81681.866	1	81681.866	0.362	.588
Sex	164373.026	1	164373.026	2.668	.108
Sex <sup>2</sup>	89748.821	1	89748.821	1.464	.229
Mean Effects	61154.951	7	8736.423	1.310	.249
Case	81448.421	2	40724.210	0.275	.611
Like	116648.765	2	58324.382	1.131	.325
Reg.	23378.219	1	23378.219	2.866	.001 <sup>a</sup>
Con	24417.276	1	24417.276	0.660	.417
Explained	6264861.565	642	17546.514	2.361	.000
Residual	1817979.182	163	11153.246		
Total	1294464.727	175	8732.718		

Table 4a. Continued

*Dependent Variable: Fetal Age*

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig.
Corrected	1471.280	4	367.820	1.000	.980
Age	117.808	1	117.808	3.007	.090
Sexes	887.800	1	887.800	2.378	.120
Years	814.886	1	814.886	2.212	.141
Race	798.820	1	798.820	2.157	.149
Sex	800.820	1	800.820	2.000	.161
Mean Effects	1178.097	7	168.299	2.868	.008
Cur	8268.840	2	4134.420	1.361	.258
Ede	6188.311	2	3094.156	2.886	.071
Reg	8115.736	1	8115.736	1.734	.187
Con	8074.536	1	8074.536	1.124	.289
Explained	8798.578	61.2	143.766	2.431	.006
Residual	18718.416	162	115.546		
Total	12617.994	170	742.232		

\*Significant at level .05

**Table 4-8 Post Hoc Analysis of Variables****Variable 1: Type, Target & Degree of Liking Teaching Knowledge Education**

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	007	00733-4633	364-4616	1-0333	0000*
Within Groups	149	10834-6664	040-6617		
Total	156	10847-4722			

**Variable 2: Basic Content Methods & Degree of Liking Teaching Knowledge Education**

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	002	0065-9464	032-9680	1-9871	0000*
Within Groups	148	4061-1037	048-3367		
Total	150	4069-2696			

**Variable 3: Basic Content Concepts & Degree of Liking Teaching Knowledge Education**

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	002	042-3468	41-1744	12-7617	0000*
Within Groups	149	806-4816	05-3329		
Total	151	844-6408			

**Variable 4: Content Concepts & Degree of Liking Teaching Knowledge Education**

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	002	0436-9086	48-8093	14-8483	0000*
Within Groups	148	1287-9620	04-2027		
Total	150	1494-6008			

**Variable 5: Types of ETCs & Degree of Liking Teaching Knowledge Education**

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	007	0043-6244	06-8433	4-3326	0000*
Within Groups	149	1700-9819	06-8290		
Total	156	1844-2696			

Table 4-8 Continued

Variable 1: *ADP Concepts & Degree of Liking Teaching Strategy, Educators*

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	662	602.1246	90.9675	3.3312	.0023*
Within Groups	249	761.8213	3.0595		
Total	911	1363.9459			

Variable 2: *ADD Concepts & Degree of Liking Teaching Strategy, Educators*

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	662	89.6132	28.491	3.0887	.0074*
Within Groups	249	1113.8330	44.7323		
Total	911	1203.4462			

Variable 3: *Teaching Methods & Degree of Liking Teaching Strategy, Educators*

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	662	66.6163	24.938	6.3479	.0017*
Within Groups	249	1026.3603	41.2227		
Total	911	1092.9766			

Variable 4: *Time on Bird-Control & Degree of Liking Teaching Strategy, Educators*

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	662	867.0834	27.1172	6.3443	.0018*
Within Groups	249	1072.0239	42.9855		
Total	911	1939.1073			

Variable 5: *Time on Cuckoo & Degree of Liking Teaching Strategy, Educators*

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	662	627.0036	27.5354	6.3993	.0026*
Within Groups	249	1276.6376	51.2685		
Total	911	1903.6412			

**Table 4.4** Continued**Variable 5: Age, Faculty of Status of District Constituents Member**

Source	D.F.	Sum of Squares	Mean Squares	F	P
Between Groups	894	605294.283	76.5428	1.7546	1.965
Within Groups	794	302474.699	41.6862		
Total	1288	907768.982			

**Variable 6: Birth Control Method of Status of District Constituents Member**

Source	D.F.	Sum of Squares	Mean Squares	F	P
Between Groups	854	8111.8998	27.2999	1.9226	1.286
Within Groups	734	4458.1967	19.4888		
Total	1288	12570.0965			

**Variable 7: Teaching Method of Status of District Constituents Member**

Source	D.F.	Sum of Squares	Mean Squares	F	P
Between Groups	884	9448.89	12.3628	4.9733	0.047*
Within Groups	234	966.8714	94.1189		
Total	1288	10415.7614			

**Variable 8: Time on Birth Control of Status of District Constituents Member**

Source	D.F.	Sum of Squares	Mean Squares	F	P
Between Groups	884	8311.89288	12348.7445	2.8184	0.002*
Within Groups	734	262887.9528	3596.7784		
Total	1288	271000.1457			

\*Significant at level .05

**Table 4-6 Post Hoc Tukey's Honestly Significant Test***Independent Variable: Degree of Licensure Teaching Secondary Education*

Dependent Variable	Very Much Liked (1)	Somewhat Liked (2)	Neither Liked nor Disliked (3)	Sig. Exact Post Hoc
Scope Targets	26.40	22.75	27.66	0.02 1-3
Birth Control Methods	66.76	63.40	60.33	0.02 1-3
Birth Control Concepts	60.75	64.50	60.48	0.02 1-3
Condom Concepts	66.66	62.96	60.44	0.02 1-3
Types of STDs	66.60	67.16	60.23	0.02 1-3
HIV Concepts	60.60	66.16	60.09	0.02
STD Concepts	66.60	65.40	66.76	1-2
Sexually Transmitted	67.50	66.48	66.41	0.02 1-3
Time on Birth Control	39.66	46.71	44.61	1-3
Time on Condoms	33.40	32.40	30.96	1-2, 1-3

*Independent Variable: Source of Sexuality Curriculum Material*

Dependent Variable	Monitored Curriculum	Suggested Curriculum	Neither	Don't Know	Sig. Exact Post Hoc
Scope Targets					
Birth Control Methods	60.40	60.44	66.34	60.42	1-3 2-3
Time on Birth Control	37.33	36.73	31.22	44.66	1-3

\*Tukey-HSD test with significance level .050.



**Table 3.1: Multigate Regression**

Dependent Variable: %gate / Sample

Independent Variable	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob> T	R <sup>2</sup>
Intercept	14.96112	0.178136	31.28	0.00	0.84
% White	0.00000	0.00000	00.00	0.00	0.84
Total %	00.00000	0.00000	-00.00	0.00	0.84
% Freq. Band	00.00000	0.00000	00.00	0.00*	0.84

Dependent Variable: Block Control Hg stock

Independent Variable	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob> T	R <sup>2</sup>
Intercept	1.93214	0.11499	0.31	0.00	0.87
% White	0.00000	0.00000	0.00	0.00*	0.87
Total %	0.00000	0.00000	0.10	0.00*	0.87
% Freq. Band	0.00000	0.00000	0.00	0.00*	0.87

Dependent Variable: Block Control Concept

Independent Variable	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob> T	R <sup>2</sup>
Intercept	1.08449	0.21407	0.36	0.00	0.08
% White	0.00000	0.00000	0.00	0.00*	0.08
Total %	0.00000	0.00000	0.00	0.00*	0.08
% Freq. Band	0.00000	0.00000	0.00	0.00*	0.08

Dependent Variable: Covarian Concept

Independent Variable	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob> T	R <sup>2</sup>
Intercept	3.41888	0.27968	12.09	0.00	0.08
% White	0.00000	0.00000	00.00	0.00*	0.08
Total %	-0.00000	0.00000	-00.00	0.00*	0.08
% Freq. Band	0.00000	0.00000	00.00	0.00*	0.08

Table 4.2: Continued

Dependent Variable: Type of Injury

Independent Variable	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob> T	95% CI
Intercept	8.21107	0.19922	41.23	0.00	8.01 8.41
% White	0.00002	0.00001	04.20	0.07	0.00 0.01
Total %	0.00003	0.00001	-00.34	0.73	0.00 0.01
%Free/Red	0.00004	0.00001	04.10	0.00	0.00 0.01

Dependent Variable: All Injuries

Independent Variable	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob> T	95% CI
Intercept	7.18122	0.20925	34.32	0.00	6.77 7.59
% White	0.00004	0.00001	00.02	0.42	0.00 0.01
Total %	0.00001	0.00001	-01.04	0.30	0.00 0.01
%Free/Red	0.00001	0.00001	00.00	0.42	0.00 0.01

Dependent Variable: STD-Cases

Independent Variable	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob> T	95% CI
Intercept	8.92118	0.28071	31.74	0.00	8.34 9.50
% White	0.00000	0.00001	00.00	0.97	0.00 0.01
Total %	-0.00001	0.00001	-00.72	0.47	0.00 0.01
%Free/Red	0.00001	0.00001	00.00	0.92	0.00 0.01

Dependent Variable: State Sample

Independent Variable	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob> T	95% CI
Intercept	12.18079	0.14296	85.37	0.00	11.89 12.47
% White	-00.00001	0.00001	-00.05	0.48	0.00 0.01
Total %	00.00001	0.00001	00.00	0.92	0.00 0.01
%Free/Red	00.00001	0.00001	00.47	0.64	0.00 0.01

Table 4-7 Continued

## Dependent Variable: North Preference

Independent Variable	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob> T	R <sup>2</sup>
Intercept	9.37790	0.39604	23.70	0.00	0.61
% White	-0.00004	0.00002	-61.75	0.00	0.61
Total %	0.00000	0.00000	0.00	0.10	0.61
%Free/Red	0.00000	0.00000	-81.56	0.17	0.61

## Dependent Variable: Trading Method

Independent Variable	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob> T	R <sup>2</sup>
Intercept	0.91778	0.25464	37.17	0.00	0.63
% White	0.00007	0.00000	61.24	0.10	0.63
Total %	0.00000	0.00000	-90.96	0.00*	0.63
%Free/Red	0.00000	0.00000	67.18	0.00*	0.63

## Dependent Variable: Time on Address

Independent Variable	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob> T	R <sup>2</sup>
Intercept	71.45823	11.97980	5.96	0.00	0.63
% White	-0.00007	0.000047	1.28	0.20	0.63
Total %	0.00017	0.000070	-3.17	0.00*	0.63
%Free/Red	-0.00782	0.000124	2.28	0.02*	0.63

## Dependent Variable: Time on Birth Control

Independent Variable	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob> T	R <sup>2</sup>
Intercept	44.81408	8.27049	5.41	0.00	0.67
% White	0.000170	0.000077	2.20	0.03*	0.67
Total %	0.000164	0.000056	-3.10	0.00*	0.67
%Free/Red	0.000790	0.00006	1.82	0.07*	0.67

Table 4-5. Continued.

Dependent Variable: Total (1980-1990)

Independent Variable	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob.> T	[R <sup>2</sup> ]
lnwage	29.47607	2.98499	4.47	0.00	0.87
% White	0.00084	0.00038	3.08	0.00*	0.87
Total N	60 08148	0.00043	3.83	0.00*	0.87
%Free/Total	0.00258	0.00030	3.68	0.00*	0.87

Dependent Variable: Total, unSTD

Independent Variable	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob.> T	[R <sup>2</sup> ]
lnwage	1.4034036	11.88134	0.19	0.85	0.83
% White	0.0000018	0.0000008	00.17	0.71	0.83
Total N	0.00 00122	0.00 00070	-0.14	0.88	0.83
%Free/Total	0.00 00011	0.00 00120	0.19	0.85	0.83

Dependent Variable: Total, unMFI

Independent Variable	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob.> T	[R <sup>2</sup> ]
lnwage	198.46736	11.09647	17.40	0.00	0.83
% White	0.00 00011	0.00 00004	20.98	0.00	0.83
Total N	-0.00 00117	0.00 00079	-04.74	0.00	0.83
%Free/Total	0.00 00014	0.00 00114	01.61	0.11	0.83

Dependent Variable: Total, Ties

Independent Variable	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob.> T	[R <sup>2</sup> ]
lnwage	0.00000	1.01836	0.04	0.80	0.84
% White	0.00000	0.00004	2.14	0.03*	0.84
Total N	0.00003	0.00007	-2.74	0.01*	0.84
%Free/Total	0.00019	0.00011	2.46	0.01*	0.84

\*Significant at level: 0.01

## CHAPTER 3 CONCLUSIONS AND IMPLICATIONS

### *The Content of Secondary Education in Florida Schools*

This study was undertaken to determine the scope and nature of sexuality education in Florida public high schools. The survey assessed the scope of sexuality education, plus the nature of STD/HIV and pregnancy prevention information, the teaching methods and skills-building, sex education-related time spent in the unit as a whole as well as individual topics within it, and teacher, student, and district variables that may have affected implementation. Also, as Florida mandates comprehensive sex education, results were used to help determine compliance.

This chapter discusses the implementation of the results. It is divided into four sections: the content of the sexuality education courses; the scope and nature of the courses; the district variables affecting implementation; and conclusions and recommendations. The first section includes the teachers' estimates and time spent on sexuality education. The second addresses the scope of concepts, compliance with state guidelines, and nature of pregnancy and STD/HIV prevention information. The third section addresses district measures and variables related to the implementation of sexuality education.

## Subjects

The respondents for this survey were 260 health and family and community educators of 120 teachers in Florida public high schools, grades 9–12. Two-thirds were Christian females and the remainder between the ages of 35 and 54. Overall they have experienced teachers as they had been teaching for an average of 16 years and personal education equatorially for an average of ten years. Most possessed Bachelor and Master degrees as well as teacher certification, were in PCS defined for multiple-year education or health. Reported number of undergraduate and graduate semester hours were assumed to be misinterpreted by some respondents due to the range of responses. Half either did not respond or had no undergraduate training, and 80% either did not respond or had no graduate training. As reasonably, it appears graduate training is a variable education is not a norm among those teaching it.

**Confidence.** Teacher confidence was significantly related to the implementation of one aspect of personal education. PCS teachers taught significantly more both control methods and concepts. However, this finding may be affected by the finding that PCS teachers were significantly more likely to teach alternative courses and health teachers reported classes. Less than 1% of health teachers taught elective courses. It is possible that class status as required or elective had a greater effect on what was taught in courses than did teacher confidence. It seems more plausible this applied courses would have a substantial on what could be taught in classes rather than teacher confidence accounting for the difference.

**Continuing Education.** Teachers took an average of 16 hours of workshops, in-service training, and seminars that specifically prepared them for teaching secondary education. Based on the 14 year average for teaching secondary education that would be expected to slightly less than two hours per year. This seems consistent with the mean that half the reported they attended at least one (57%) or more (57%) sessions in the past year. Although it is commendable that teachers are receiving a baseline of training, continuing regularly, the issue is probably not sufficient in large classes of changing attendance, teaching techniques, and in rebuilding strategies.

**Attitudes.** Teacher attitudes toward teaching secondary education were positive overall. Almost all (94%) felt it was the responsibility of the school to teach secondary education. Teacher ratings of the importance of concepts that could be included in comprehensive secondary education, and the degree to which they reported being teaching secondary education, had a significant impact on what was taught in courses. Teacher ratings of the importance of topics is postulated to have had a greater impact than the state secondary education guidelines on whether or not a concept was included in the curriculum. This is discussed in more detail below. Teacher degree of being teaching secondary education had the greatest impact of the variables measured in this study, on what was included in the curriculum. Higher degrees of being teaching secondary education were related to including significantly more concepts on right of the sub-states and spending more time on three of the same estimates.

These findings reinforce the important effect teacher attitudes have on curriculum implementation. It has been previously documented that teacher attitudes about whether

sexism/sexer should be included in the curriculum (Olin, 1982) and the importance of a topic (Visher, Tuerlin & Halfon, in press) significantly influence the inclusion of the topic. There is a need for training programs that not only strive to increase knowledge, but also express attitudes toward the concepts within and the sexuality education as a whole. Another training for sexuality education courses has been found to increase knowledge, perceptions of importance of teaching it everywhere, intent to teach and level of comfort with the course content (Lewinsohn, O'Leary & Hershman, 1988).

### Curriculum

Sexuality education was most commonly taught in Life Management Skills (40%), Life Skills (38%) and Health Education (37%) courses. The majority of the students were at middle grade (59%) followed by middle grade levels (38%), high school (12%) and health grade (1%). This indicates that sexuality education was not comprehensive in nature as it was not taught at all grade levels. Throughout the nation, it is also true that sexuality education is provided at every grade level (Jans, Tobi, 1984). This is problematic for several reasons. First, comprehensive sexuality grades kindergarten through twelve is mandated by Florida. There is also a need for sexuality education to continue through twelfth grade given the changing needs and stages for students at older ages. Finally, there is the practical matter that all topics for comprehensive sexuality education can not possibly be handled at one grade level.

**Regional and electronic programs.** The status of the course as required or elective had a significant impact on what was taught in sexuality education courses. Elective courses



suggested sexual activity in a comprehensive range of sexual activities (both male & female) and both sides of concepts. This teaching required overall health education in HIV and STD concepts and spent more time on both HIV and STD. The implies that in general, later, there were discussions placed on what could be taught and no emphasis on the to give management of sexual activity, STDs and HIV. Course content appeared to have more breadth in what could be taught including addressing the more detailed issue of contraceptive rather than taking an abstinence only approach. Although it was indicated that some courses included both sexual options, clearly not all students received that information. This survey did not assess the extent of students that enrolled in these elective courses so it is not known what percent of students were taught about both sexual options and exposed to a broader range of human sexuality education concepts.

**Lesson Materials.** Most commonly, teachers reported they created their own materials for a lesson which is consistent with previous findings that this is a common practice (Goggin & Seymour, 1999; Orr, 1992). They also reported using published curriculum and other resources such as materials provided by the district, text materials and pamphlets. It was noted teachers were either not satisfied with the materials they were provided with or did not have a resource adequate materials. Lack of acceptable materials has been commonly reported as a major barrier and issue of inadequate findings in teaching sexuality education (Goggin & Seymour, 1999; Goggin & Henderson, 1999; Holquist et al., 1996). The text books used were most commonly general health, life management skills or making choices texts. A few used human sexuality, marriage and

level, or child development level. The parent's, teacher's, or child's do not provide adequate coverage of many of the topics teachers reported covering such as birth control methods and sexual orientation. Often this material is produced as an addendum, completely separate from the text.

### Time Spent on Sexuality Education

Over half of respondents in this study reported spending between six and 28 hours on sexuality education. Previous research has also reported that the majority of teachers spend within this time frame on a sexuality education (Columbia, 1990; Orr, 1993; Swensson & Pomeroy, 1994). The majority of sexuality education centers in this study was on HIV and STDs. Over two hours were spent on average on HIV and under two hours on STDs. Abstinence followed with an average of one and a quarter hours dedicated to it. Birth control with an hour and finally condoms with half an hour. The most time spent on other prevention related topics was approximately one-and-a-half hours. The total time spent teaching sexuality education averaged eleven hours. This means that less than four hours were spent on the other 11 topics listed in the SECUS-Questionnaire. Of the 34 concepts, nine sexual and birth control were considered one topic, as well as STDs and HIV.

Teachers reported including an average of 12 of the Questionnaire's 34 concepts, as well as teaching an average of 12 of the 64 skills-building activities. It does not seem possible to include all these other topics, as well as incorporate skills-building activities in four hours. Of course, some of the skills-building activities were probably

transmission discussed a prevention topic listed above. This implies that the issue is that the *in vitro* is a social consequence of sexual behavior, rather than an actual health promotion.

Work at this has often been used as a major barrier to the implementation of sexual education (Clemens, 1990; Forrest & Salmeron, 1989; Hagmann et al., 1990). A review of the effectiveness of school-based sexuality education programs recently concluded that the success of such education programs may not be as important as previously thought (Kilhe et al., 1994). More important may be the content of theory behind and skills-building embedded in sexuality education programs. However, it would appear that more work needs to be effected for sexuality education in the classroom to be implemented in comprehensive approach that is recommended by professionals.

### *The Scope and Nature of Sexuality Education in Florida Schools*

#### *Scope of Concepts Taught*

An average of 11 of the 130 concepts 36 concepts were taught by teachers, and more than 7 in 13 taught 15 of the concepts. Prevention oriented and factual topics were most commonly included. These included abstinence, disease testing, STDs/HIV, contraception, dating help, love, friendship, etc. Those that were most often neglected included topics often considered to be controversial, such as abortion, shared sexual behavior, masturbation, and diversity. These findings were fairly consistent with previous studies of sexuality education teachers (Forrest & Salmeron, 1989; Kellertop

& T. L. Smith (1984) (1982) Somersdale & Pridmore (1984) Yarker, Tansie & Halfon (in press).

With some degree of variability in the presence of incidents that included it was a plain sexual incident. Sexual abuse taught by more than eight teachers in this study has been reported to be considered controversial and taught by two to ten or less in some studies (Clarkson & Banks (1984) Somersdale & Pridmore (1984) Yarker, Tansie & Halfon (in press). Abortion taught by less than half of teachers in this study has been included by more than three decades in previous research (Farrow & Silverman (1981) Orr (1982). Contraception taught by seven or less in this study has been reported taught most commonly in other research by three decades or more than eight or less teachers (Farrow & Silverman (1981) Orr (1982) Somersdale & Pridmore (1984) Yarker, Tansie & Halfon (in press). Additionally, although 70% reported teaching it in this study, it has further remained just under two-thirds actually taught it. The others did discuss it if students asked questions.

The differences in what was included may be due to numerous factors. For example, as sexual abuse has become more rampant as a social problem, it may now be considered more important and socially acceptable to discuss in a classroom. Some concepts may have been viewed as defined differently across studies. Abortion may have been discussed positively or negatively, partially or totally in various studies. State and district policies and policies may have brought more attention to, and/or supported or suppressed the teaching of a topic such as contraception.

not (can not) be used to produce a happy ending was sexual identity and orientation. Eighty-eight percent of subjects reported teaching it. However, when concerns in terms, subjects questioned the meaning of it. Some respondents indicated that if the concept returned to homosexuality, then this did not result in The Guidelines development of it. And in this survey, was generally for young people grow and develop their bodies to feel comfortable and sexually attracted to other people (3) and not technically accurate as noted previously. In comparison to findings from previous research (Flores & Silverman, 1999; Robinson & Beerk, 1984; Orr, 1983; Satterstrom & Pagnan, 1984), it does not seem likely that this survey audience would include the topic. Also, in comparison to the low percent (27%) who reported teaching the diversity concept, which is similar in nature, it seems unlikely that more than 2 or 3 teachers would include sexual identity and orientation.

### **Rated Importance of Concepts**

Most of the sexuality education topics (84%) were rated important to extremely important. Highest ratings of importance were significantly related to inclusion of the topic. Therefore, topics that were rated most important were also those most commonly taught and topics rated least important were those least likely taught. Teachers taught prevention-related and factual topics more often, perhaps because they felt they were the most important, as well as being the most assigned of sexuality education topics in general. The career-related topics were not only taught least often, but considered to be least important. These findings are consistent with Fisher, Tondra, & Hoffman's (in

insufficiently relevant as used as the basis for that portion of the survey. This implies a need for teacher training to help increase feelings of importance as well as confidence with the whole range of secondary education topics, especially topics considered controversial. Teacher training, previously mentioned, has been found to have this effect (Lewy and Conyon & Hamilton 1999). There is also probably a need for local-school and community support in dealing with these controversial topics. In addition, these included secondary-level topics are probably appropriate for many comprehensive programs, of which there are few, if in general, and programs at higher grade levels, of which there are few, in Florida.

### Compliance With Florida Secondary Education Guidelines

Results indicated that teachers taught an average of 18 of the 30 ECOS Guidelines concepts and the Florida Curriculum also included 23 of these concepts. However, there were not the same 23 concepts. Some concepts were not used by both the Curriculum and teachers; others were covered by the Florida Curriculum or the majority of teachers, and still others were not covered by either. It appears that inclusion of a concept was more likely influenced by teacher ratings of the importance of a subject than whether it was included in the Curriculum.

Topics included by both were similar to those most commonly taught and considered important by teachers, listed above. Topics included by the Curriculum, but taught by less than half of teachers, may be considered controversial topics and may stand as some of the least important topics by teachers. These included secondary and the

and adolescent issues, reproductive history, and sexual dysfunction. Both teachers and the Curriculum Committee (1996) gave controversial topics such as masturbation, sexology and religion, and abortion. Three of the Guidelines topics were probably not included by the Curriculum Committee because they were not age appropriate. However, some of the topics excluded from the Curriculum were among the most often taught by teachers. These topics included racism (70%), friendship (61%), negotiation (60%), and puberty (62%). Again, these topics were considered important by teachers. In summary, it appears that teachers' personal attitudes toward sexual education concepts had a greater influence than Florida's Curriculum on what was taught at the classroom level. Teachers neglected topics that did not consider important, which were generally those considered controversial and included those they thought important, regardless of what the Curriculum included.

### The Nature of Sexuality Education

**Abstinence.** As expected, abstinence was the method most likely to be taught as a method of preventing pregnancy and STDs/HIV using both risk control methods or condoms. The majority of teachers (99%) taught abstinence as the best method of prevention. Fortunately, the majority reported they supported this message by teaching students skills such as how to say no to a partner (91%) and how to resist peer pressure (96%). Accordingly, more time on average was devoted to abstinence than either birth control or condoms. Previous research has also documented abstinence is taught by the

majors: *Teacher's Reports* 1994; Larson & Silverman 1995; Yager, Twiss & Radway, in press.)

**Both control methods.** Although 77% of teachers reported teaching both control (as Opp two-choice) (44%) actively included it in their curriculum. Almost two-third of teachers only addressed the topic if students initiated questions. This is curious but less than the 40% one might expect if all teachers that reported teaching both control methods in previous reports (Forsner 1994; Peters & Silverman 1995; Kahanec & Wink 1994; Yager, Twiss & Radway, in press). However as with this study, Peters and Silverman (1995) also found that although 94% of teachers reported classroom discussions on both control only, 70% actually taught it. The other 24% of teachers only addressed the topic if students initiated questions. Additionally, a significantly greater number of both control methods and concepts were addressed in elective courses than in required courses in this study.

Only 8% of the 40 both control methods were taught on average and the methods addressed were not necessarily the most appropriate. For example, some of the methods taught less frequently (by about half or less) were never recommended such as comparing the double occlusion and deep pressure. Of these the horizontal methods have high cost of both error rates and time are probably more desirable to teach. A method not appropriate for adolescents, the instantaneous decision was taught by slightly more teachers than the just study maintained methods. All of the related concepts as how to use the methods were covered by less than half of teachers. Only half included how to communicate with a partner about both control, an important issue for both



methodologies involved. Additionally, the average time spent on birth control equaled the justice teacher. This does not leave much for much more than presenting the facts alone.

Even though two thirds of teachers included birth control methods, elective lessons covered significantly more methods and concepts. The percent of students that received this information through elective courses is questionable, and the extent of the information in the required classes is unknown. The information may have been limited due to classmate reactions, a lack of information on newer technologies, new contraceptives, or personal discomfort or negative attitude toward the topic. Some respondents noted in that they would cover birth control methods if they were not prohibited from doing so. Repetitive efforts need to be made to provide accurate information on birth control methods in these courses and/or ensure that all students are exposed to it. Education on birth control options and their correct use is necessary to help decrease unwanted pregnancies. Additionally, preventing teen pregnancies and STDs is the national intent Florida's mission.

**Condoms.** Coverage of condoms was similar. Three of the six in concepts were reported by less than half of teachers, and another three by less than two-thirds. The other concept encouraged condoms for STD prevention. Although this is an important concept, it is not very useful if students do not know how to use or where to get condoms. Only half as many was spent on average on condoms. The percent of teachers that discussed condom use in this study was substantially lower than that found in one study—37% (Forsyth & Schwering, 1988) and similar to another study—34% (Forsythe, 1999).

Again, efforts must be made to increase the potency of teachers in addressing this conceptual the manner in which it is addressed.

**STIs/HIV.** The emphasis in class activities was definitely on the negative consequences of activities, namely STIs/HIV. STIs/HIV have consistently been reported as the topic most likely to be addressed in high school sexuality education courses (e.g., Brown, 1994; Farooq & Silverman, 1989; Kahanamy & Winkler, 1984; Yablon, Tarnoff, & Ballinger, *in press*). Teachers taught an average of eight out of ten of the STIs listed. However, as with contraception, some of the diseases that have recently become more prevalent were less likely to be taught than others. These included genital warts and pelvic inflammatory disease. The majority of concepts related to STIs/HIV were covered by most teachers, although slightly more of the HIV than the STD concepts were taught on average. This was consistent with the finding that the greatest amount of time was dedicated to HIV, followed by STDs. Condoms were least likely to be taught as a method of prevention, provided by educators and monogamy. Additionally, the concept that likely to be included was where students could obtain testing and treatment. Once again, information about STIs/HIV is useful only if students know how and where to get help.

**Reliability.** Teachers were most likely to refer students to parents for help with birth-control, but most likely to send them to a local family planning or sex health department or family doctor for help with STIs/HIV. It could be speculated that this is because thinking out about birth-control is hopefully done before becoming sexually active and before the teachers. If this situation was best handled by the parents. This suggests

**Community and family resources.** In general, such resources advanced responses (Lough, 1994). Seeking help for STD/HIV is something that would usually be done after initiating sexual activity. The students might need medical attention regardless of the influence or lack of one of the parent. Hence teachers might have felt it was more appropriate to refer them to this resource. It was also interesting, that for all three resources, boys were least likely to refer students to resources within the school. Less than one in ten referred students to a school nurse and less than one fourth referred to a guidance counselor for these issues. This may have been because some schools did not employ a school nurse or teachers believed that it was the appropriate role of the guidance counselor to use. This may also have been because teachers and/or students were not comfortable with or did not trust these individuals. It seems that in-school resources would provide easier access to seeking help and may be necessary for the present that did so.

**Guest speakers.** Most community guest speakers were brought in from outside organizations to talk about HIV/AIDS followed by STDs. Somewhat less commonly speakers were brought in to address abstinence both casual or condoms. It was rare that male speakers were used for any of the topics. Again, this may have been because male resources were not available.

**Skills building activities.** The 14 skills building concepts included in this survey were each taught by at least seven out of ten teachers. However, while teachers taught an average of 12 out of 14 of these topics, they only had students practice an average of nine of these skills. Less than two-thirds had students practice perceived STD/HIV risk or protect refusal, negotiation, or correct management skills. Less than one half had

understanding, knowledge, and skills, and the social context of the situation. It is essential to consider all of these factors. Although teachers may have discussed the importance of social skills, students do not fully comprehend them unless they are given the opportunity to explore the emotional process, the skills themselves. For example, students can be told it is important to be assertive, but actually for eg. they role-play a situation that requires them, discussing in turn about how they would handle a situation as an assertive person, and then a more of an effect. Research shows that although awareness, understanding alone is not enough to effect behavior. Skills-building activities and a consistent component of program proved to have a positive effect on actual behavior (Kazdin et al., 1994).

**Teaching methods.** The most common teaching methods employed were teacher-oriented. Methods such as cooperative learning/small groups, journal/story writing, and peer helpers were used less frequently, consistent with the finding that processing skills is less common than teaching about them, discussed above. There are methods that could personalize information, address social influences or pressures on actual behavior, reinforce values against unacceptable sexual activity, and provide modeling and practice in communication/negotiation skills. These factors have been identified as considerations among programs with a positive impact on sexual behavior (Kazdin et al., 1994).

Previous research has also found that teacher-oriented methods are among the methods most commonly utilized (Patterson, 1994; Pageau et al., 1996; Orr, 1992). This implies that teachers need training with interactive teaching methods, also documented as prior

Journal of Research on Education, 2006). The Gender Equity program is a strategy to promote positive impact on adolescent social behavior.

### The Effect of District Variables on Sexuality Education

#### District Sexuality Education Mandates

Sexuality education is mandated in Florida however the Commission is not bound with its guidelines. In addition, there are no state requirements to monitor the implementation of sexuality education (Dumbrill & Palmer, 1996). Hence, in this survey, district mandates were assessed, as well as compliance with state guidelines. As a consequence, almost one-third of teachers reported a specific sexuality education curriculum was mandated for them to use and almost one-fourth reported one was suggested. Another one-fifth said it was neither mandated nor suggested and 14% did not know or did not respond. However, when this question was broken down by district, there was an apparent lack of agreement among respondents as to the actual status of the mandate. What most districts inconsistent responses have given, especially among larger districts. So, findings related to how a mandate affected what was taught in sexuality education courses may be more related to respondents' perception of the mandate versus on a larger finding.

Only two sub-samples were found to differ significantly according to the status of the mandate as to how tests performed. Those who reported a curriculum was mandated spent more time on both content methods than did those who reported a curriculum mandated nor suggested. Both those who reported it was mandated and suggested used

more teaching methods as a sign that those who reported it was neither required nor suggested. The first finding could be interpreted in two ways. It could have been that the mandate, or perception of the mandate, was indicative of local support and/or justification for classrooming both control methods. Hence they spent more time on it. This explanation is less clear if the state guidelines are considered. The Curriculum includes both control methods as an area that should be addressed – so all teachers had the support if they desired it. If mandates had the effect supporting teachers' inclusion of various topics, significant differences between required and elective courses would not be expected. However, it is assumed that district policies and political factors more influence on what is actually taught, especially since Florida initiated the National Improvement and Accountability Act to give decision making responsibilities back to the communities.

The other explanation is that the finding is bogus. The reported differences between what was taught in required versus elective courses, discussed previously, is inconsistent with the reported effect of a mandate on what was taught in classes. Required classes emphasized STDs/HIV while elective classes emphasized both control methods. If district mandates supported teaching about both control, this finding would seem unlikely. Additionally, previous research found that only 17% of respondents in this study with a mandated curriculum used both control as a topic (Farrist & Schatzman, 1985).

### District Variables

Three district variables were analyzed for effects on implementation of sexuality education: total number of students in the district, the percent of white students, and the percent of students on free/reduced lunch (as an indicator of economic status of the district). The number of students in the district appeared to have a negative effect on what was taught in classes. As the number of students increased, significantly less was taught in terms of the sub-scales and less time spent on four of the topics. The other two variables, percent of white students in the district and percent on free/reduced lunch had a positive impact on what was taught. As these increased, so did the number of items taught in three of the sub-scales and three of the more time intensive. Additionally, another two sub-scales and one time intensive increased as the percent of students on free/reduced lunch did.

Previous research found that urban districts were more likely than rural districts and larger districts were more likely than smaller districts to provide sexuality education. There were no significant differences found based on geographic location or percent urban vs. students (Kilbrink & Woods, 1984). Another study analyzed social and demographic district variables related to implementation of sexuality education. Of these factors, nonwhite schools were less likely to have sexuality education, and number and type of post-secondary schools surrounding schools influenced the inclusion of sexuality education. The other factors measured were termed (urban, suburban, etc.), parental occupation, type of housing, and percent of non-white students—were not found to have a

significant effect on student achievement (On: 1992). Hence, an interpretation of the educational impact can draw on sexuality education is difficult to establish.

### **Conclusions and Recommendations**

The majority of respondents within our set, were teaching sexuality education and related topics. They also felt that was the appropriate role of the school to be providing this education. While teachers covered a variety of important topics such as abstinence, HIV/STDs, decision making, values communication, sexual abuse, finding help, reproductive health, contraception, parenting, menstruation, friendship and love. In fact, an average of 2% of the 33 topics listed were taught by teachers and 21 of the topics by at least three-fourths of teachers. This demonstrates that a baseline of sexuality education is being provided for students in 3 for six public high schools.

However, when requested more details, problems with both the content and context of this education became apparent. Although teachers covered a wide variety of important sexuality education topics, there appeared to be a focus on the negative management of sexual behavior, mainly HIV and STDs. The greatest amount of time (about 40% of the total on topic time) was spent on these issues. Accordingly the highest percent of correct per were also observed in these areas. After these topics, the emphasis was on determining both correct and condoms methods of preventing these negative consequences. These 2 topics accounted for two-thirds of the total on topic time spent on sexuality education. This means that on average of less than four hours were spent on the other 21 topics listed. This is not to say that the topics emphasized are not important.



As Iowa Florida is addressing some of the priority areas—conscience and STD prevention—suggested in *Interim Report Collins et al. (1993)* work. In addition, pregnancy and STD/HIV prevention are the elements behind Florida's mandate for sexuality education. However, these findings imply that the approach taken in these curricular materials focuses emphasis on the negative consequences of sexual behavior and how to prevent them.

In addition, the prevention aspect appeared not to be as comprehensive as it could have been. Kirby et al. (1998) found six main components among programs that had a positive impact on sexual behavior discussed in Chapter 2. Most of these factors are skills building activities. Although teachers reported teaching many of the skills-building concepts, substantially fewer actually had students practice these skills. Findings related to the teaching methods utilized by respondents were consistent in that they tended to be teacher-oriented. The methods used least often were those that incorporated student activities. Also, the concepts covered in the sub-scale—both sexual conscience and STD/HIV concepts—that were related to skills-building were taught less often than other concepts within the same sub-scale.

The sexual education provided in Florida public high schools apparently is not from a sexual health promoting approach and lacks emphasis on the better sex domain which is necessary to promote positive behavior and reduce the negative consequences associated with unprotected sexual activity. There are obviously many factors that affect the type of education that is provided at sexuality education courses, many of which are beyond the individual classroom teacher's control. In order to improve sexual

training, differentiation of content, adequate materials, increased amount of

materials, and increased support from the state, districts, and schools are needed.

Teacher attitudes had a significant effect on what was taught in classes in the  
 school. This is an area that has been researched relatively infrequently. However, other  
 studies have reported similar findings (De 1982, Tucker, Trench, & Wolfson, in press).  
 In addition, research has also found that teacher training can have a significant effect on  
 knowledge, perceptions of importance of teaching a curriculum, extent to which, and level  
 of comfort with the content content (de Leon-Cajigas & Hernandez, 1999). Future  
 research needs to investigate this area further to establish the content of the courses and  
 the frequency of teaching is available to, perhaps it is required for those teaching  
 secondary education. Florida does not currently require training or certification for  
 secondary education teachers (Ponderell & Pomeroy, 1994). However, teacher training  
 needs should not be solely addressed as a state or district responsibility. Although  
 teacher preparation or secondary education for FCS teachers has not been assessed, it  
 has been shown to be lacking for health education majors (Rodriguez et al., 1993-96).  
 This is a problem that also needs to be addressed to help improve secondary education at  
 the classroom level.

The Components provided by the state were developed as a guideline so the  
 topics that should be included in secondary education programs. They do not include the  
 information, the building materials, or teaching methods necessary to teach secondary  
 education. Most commonly, teachers reported they created the materials used in class  
 followed by using a published curriculum. However, all responses for the name of the

public domain, given by less than 3% of respondents. It appears that teachers approached teaching secondary education as a fragmented activity, using materials from a variety of sources that they placed together on their own. If the secondary education provided in schools is to be coherent, comprehensive and include effective skills-building, strategic instruction, and appropriate materials to enable them to do so. The original model separates state, middle level, but for selected at the district level to allow a consistent middle-stage and assure appropriateness. Ideally, these materials should be presented in writing systems. This requires that teachers are not only prepared to teach, but also might have to use a specific curriculum and given the appropriate materials to take back to their classrooms.

Teachers also need to be afforded more time at the middle school level than they are adequately cover the full range of secondary education. Life management skills, the course most commonly named in this study, is a required class and probably, over loaded a curriculum that has to be covered, hence leaving time for all topics. Lack of time to cover secondary education is often cited as a barrier to implementation. However, one approach that may help to illustrate that is to create comprehensive approach to secondary education addressing a small grade levels, as mandated by the state of Florida. This way input could be built on at age appropriate levels helping to discuss the nature of information that has to be addressed in one course.

All of these factors require improved support from the schools, districts, and state. A cooperative effort has to be made if secondary education is to improve in Florida.

*Keywords:* education guidelines, materials, and related materials need to be shared and

learning) as well as their skills. This requires improving communication among state levels, as well as with teachers, to ensure that expectations are known and resources for teaching and training available. District mandates can be supporting or undermining what can be taught in schools.<sup>14</sup> Equally, it is clear that teachers need more support for teaching the full range of sexuality education, especially for a topic such as birth control that is critical to the success of Florida's mandate-operating STD/HIV and unwanted pregnancy.

It is apparent that the sexuality education provided in Florida public high schools is not consistent with guidelines of programs proven to have a positive effect on sexual behavior. However, this has the potential to be part of the solution to the high rates of adolescent STD/HIV, and unwanted pregnancy, as well as promote sexual health. Support from the schools, districts, and state should be pooled and coordinated to help many teachers, provide them with adequate teaching materials and sufficient time in the curricula in order to improve school-based sexuality education.

In addition, further research should be done in other states that mandate sexuality education to assess compliance with guidelines and further offering implementation. At the national level, a comprehensive study at the classroom level could assess the differences in implementation across states that require, support, or do not take a position on – perhaps even discourage – sexuality education. Findings from these studies could help to further clarify factors important to the improvement of comprehensive school-based sexuality education, as well as demonstrate the efficacy of state versus district level mandates.

APPENDIX  
A. RHYTHM AND CORRESPONDENCE

**A STATEWIDE SURVEY OF HIGH SCHOOL  
SEXUALITY EDUCATION TEACHERS**

**THE NATURE AND SCOPE OF SEXUALITY EDUCATION  
IN FLORIDA'S PUBLIC HIGH SCHOOLS**

This survey is being conducted to assess the nature and scope of sexuality education in Florida public high schools. If you wish to comment on any question or quality, to answer questions, please feel free to use the space on this page. Your comments will be read and taken into account.

Please answer *all* of the questions. Of course, if there are any, you do not wish to answer, you need not do so.

Thank you for your help.

(print name of Florida)

Michelle Johnson Moore, M. Ed.S., C.H.E.S.  
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- 4) Which course (s) following course (s) are you (I) currently teaching?
- 1 I AM TEACHING SEX EDUCATION THAT INCLUDES AIDS EDUCATION THIS SCHOOL YEAR (1999-00) WITHIN GRADES 9-12.
  - 2 I AM TEACHING SEX EDUCATION THAT DOES NOT INCLUDE AIDS EDUCATION THIS SCHOOL YEAR WITHIN GRADES 9-12.
  - 3 I AM TEACHING AIDS EDUCATION, BUT NOT WITHIN COMPREHENSIVE SEXUALITY EDUCATION THIS SCHOOL YEAR WITHIN GRADES 9-12. (Please answer all questions, not using "AIDS education" or "sex education" where appropriate.)
  - 4 I AM NOT TEACHING ANY SEX OR AIDS EDUCATION THIS YEAR. (Please do not fill out this survey. Please send it back. If the principal does not do so, that you further not follow up later.)
- 5) In what class(es) do you teach sex education? Indicate what grade the majority of students are in for each class and whether it is required class. (Circle all that apply.)

	GRADE	REQUIRED
1 AS A UNIT IN LIFE MANAGEMENT SKILLS	9 10 11 12	YES NO
2 AS A UNIT IN HEALTH EDUCATION	9 10 11 12	YES NO
3 AS A UNIT IN HOME SCIENCE	9 10 11 12	YES NO
4 AS A UNIT IN BIOLOGY	9 10 11 12	YES NO
5 AS A UNIT IN PHYSICAL EDUCATION	9 10 11 12	YES NO
6 AS A SEPARATE COURSE	9 10 11 12	YES NO
7 OTHER (please) _____	9 10 11 12	YES NO

- 6) If you teach more than one class that includes sex education, please write in the ONE class and grade from the list above that you will refer to in answering the remainder of the survey. Please choose this class based on class priority. If it is required, it premier course of your sex or sex education. To prevent number of students reached.

**Part I Demographics:** Questions 1-6 are demographic questions that are to be completed as a comprehensive, voluntary, anonymous procedure. Please, however, fill out a complete form **even** if you:

**Collaborator I:** Use the below response form **exactly as printed** concerning the **degree of importance** of each topic/question as part of a comprehensive approach to sexual education.

**Response Key:**

NOT AT ALL IMPORTANT (1)                      MODERATELY IMPORTANT (3)                      EXTREMELY IMPORTANT (5)

**Collaborator II:** Indicate whether or not the topic/question is **included** or **omitted** or a **small** to **large** extent (see 1b) in the sexuality education unit in your **assigned class**.

		IMPORTANCE					INCLUDED	
		1	2	3	4	5	Yes	No
Q1	REPRODUCTIVE ANATOMY AND PHYSIOLOGY: The human body has the capability to reproduce as well as to give and receive pleasure	1	2	3	4	5	1	2
Q2	REPRODUCTION: People have both the capability and the ability to choose to reproduce	1	2	3	4	5	1	2
Q3	PUBERTY: Puberty is a universally experienced transition from childhood to adulthood that is characterized by physical changes	1	2	3	4	5	1	2
Q4	BODY IMAGE: People's image of their bodies affect feelings and behaviors	1	2	3	4	5	1	2
Q5	SEXUAL IDENTITY AND ORIENTATION: As young people grow and develop, they begin to feel consistently and strongly attracted to other people	1	2	3	4	5	1	2
Q6	FAMILIES: People are raised in families and most live as families as adults	1	2	3	4	5	1	2
Q7	FRIENDSHIP: Friendships are important throughout life	1	2	3	4	5	1	2



Q39	<b>LOVE</b> Having relationships with a partner (or multiple partners) is	1 2 3 4 5 6 7 8
Q40	<b>DATING</b> Being able to people to experience companionship and romance	1 2 3 4 5 6 7 8
Q41	<b>MARRIAGE AND LIFE TIME COMMITMENTS</b> You sign a legal commitment that you people make to share their lives and family responsibilities	1 2 3 4 5 6 7 8
Q42	<b>PARENTING</b> Parenting children can be one of life's most rewarding responsibilities	1 2 3 4 5 6 7 8
Q43	<b>VALUES</b> Values guide our beliefs and give purpose and direction to our lives	1 2 3 4 5 6 7 8
Q44	<b>DOCTORS' WORKING</b> Making responsible decisions about sexuality is important because these decisions can affect not only ourselves but others	1 2 3 4 5 6 7 8
Q45	<b>COMMUNICATION</b> Communication includes sharing information, feelings, and attitudes with one another	1 2 3 4 5 6 7 8
Q46	<b>ASSERTIVENESS</b> Assertiveness is communicating feelings and needs while respecting the rights of others	1 2 3 4 5 6 7 8
Q47	<b>NEGOTIATION</b> Negotiation allows people to solve a problem or resolve a conflict	1 2 3 4 5 6 7 8
Q48	<b>FINDING HELP</b> People with problems can seek help from family, friends, or a professional	1 2 3 4 5 6 7 8
Q49	<b>SEXUALITY THROUGHOUT THE LIFESPAN</b> Sexuality is a natural and healthy part of life	1 2 3 4 5 6 7 8
Q50	<b>MASTURBATION</b> Masturbating is one way humans beings express their sexuality	1 2 3 4 5 6 7 8
Q51	<b>BLASPHEMOUS BEHAVIOR</b> Individuals express their sexuality with a person in diverse ways	1 2 3 4 5 6 7 8

Q00	ABSTINENCE – Abstinence andstinence (abstinence is the most appropriate choice for preventing pregnancy and STIs)	1	8	1	2	0	1	2
Q01	ERectile, SEXUAL RESPONSE – Male and female bodies respond both similarly and differently to sexual stimulation	1	2	3	8	0	1	2
Q02	EVASIVENESS – Sexual partners are evasive	1	2	1	2	0	1	2
Q03	SEXUAL SATISFACTION – Sexual satisfaction is the measure to expect an enjoy sexual	1	2	3	8	0	1	2
Q04	CONTRACEPTION – Contraception enables people to have sexual intercourse without the fear of unwanted pregnancy	1	2	2	1	0	1	2
Q05	ABORTION – When a woman becomes pregnant and chooses not to have a child, she has the option of having a legal abortion	1	2	8	4	1	1	2
Q06	SEXUALLY TRANSMITTED DISEASE AND HIV INFECTION – Sexually transmitted disease including HIV infection can be avoided by individual partners before sex	1	2	1	4	8	1	2
Q07	SEXUAL ABUSE – Sexual abuse can be avoided or stopped	1	2	1	4	1	1	2
Q08	REPRODUCTIVE HEALTH – Men and women must care for their reproductive health to ensure their future children's health and development	1	2	1	4	1	1	2
Q09	SEXUALITY AND SOCIETY – Society influences what people believe and how they feel about sexuality	1	2	3	4	1	1	2
Q10	GENDER ROLES – Children learn what it is to be a man and woman	1	2	3	4	5	1	2
Q11	SEXUALITY AND THE LAW – Courts laws protect sexual and reproductive rights	1	2	3	4	5	1	2

- Q15) **SEXUALITY AND RELIGION** Religion rules about sexuality affect people's sexual attitudes. 1 2 3 4 5
- Q16) **DIVERSITY** Our society has a diversity of sexual attitudes and behavior; some people are unfairly discriminated against because of their sexual orientation or sexual identity. 1 2 3 4 5
- Q17) **SEXUALITY AND THE ARTS** Great images are a common theme in art. 1 2 3 4 5
- Q18) **SEXUALITY AND THE MEDIA** The media have a profound effect on sexual information, values and behavior. 1 2 3 4 5

**Part II. Details:** The following questions address concepts that could be included in teaching programs and STD/HIV prevention or sexuality education. To answer each question, circle the answer you choose **YES** OR **NO** in the appropriate response.

- Q19) The following items relate to teaching about abstinence. Please indicate whether or not each item is taught in your selected class. TAUGHT
- Abstinence as the only alternative for preventing pregnancy and STDs. YES NO
- Abstinence as the best alternative for preventing pregnancy and STDs. YES NO
- How to insist your partner to have sexual abstinence. YES NO
- How to use or to help/withhold. YES NO
- Negative consequences of sexual intercourse for teens. YES NO
- Q20) This question refers only to teaching about pregnancy prevention. Please indicate whether or not each item is taught in your selected class. TAUGHT
- Teach abstinence. YES NO
- Teaching about both control methods is part of my curriculum. YES NO

Explain how each birth control method works? (Answer in class requested. *Explain how each birth control method works?* of the same gender I used.)

YES/NO

I discuss birth control methods in class ONLY if a student initiates a question about them.

YES/NO

I answer questions about birth control methods on a one-to-one basis only, if any.

YES/NO

I have any students submit questions anonymously on slips of paper.

YES/NO

If necessary, questions about birth control methods I answer them in class.

YES/NO

I do not discuss anything about birth control methods either in class or after class. (SKIP TO Q43)

YES/NO

44) If you teach about birth control methods, which of the following are included in your selected class? (Circle all that apply.)

1. BIRTH CONTROL PILLS    2. FERTILITY AWARENESS/RYTHM METHOD  
 3. CERVICAL CAP    4. INTRAUTERINE DEVICE  
 5. DEPO-PROVERA    6. IMPLANT  
 7. DIAPHRAGM    8. SPERMICIDES/JELLY    9. FOAM FILM  
 10. FEMALE CONDOM    11. WITHDRAWAL

Q45) Please indicate whether or not you teach each item in your selected class.

DO YOU

TAUGHT

-Explain how each birth control method works?

YES/NO

-Explain how each birth control method is used?

YES/NO

-Give information about specific clinics or doctors students can go to for birth control?

YES/NO

-Share actual birth control devices to the class to read or instruct on?

YES/NO

-Discuss how to communicate with a partner about birth control?

YES/NO



Screening/diagnostic/disease/dyslexia screen	YES NO	YES NO
Screening/diagnostic/disease/psychiatric	YES NO	YES NO
Screen/diagnostic/disease/level of prevention	YES NO	YES NO
Screen/diagnostic/disease/specific services students can go to for help	YES NO	YES NO
Screen/diagnostic/disease/specific treatment	YES NO	YES NO

- Q46) To which of the following people do you refer students who want help with learning STDs or HIV/AIDS? (Circle all that apply.)

	WITHIN SCHOOL	HIV/ AIDS	OTHER SITE
Parents	1	2	3
Family doctor	1	2	3
Local family planning clinic	1	2	3
School nurse	1	2	3
School guidance counselor	1	2	3
Other (Specify _____)	1	2	3

- Q47) During the school year, please indicate whether you intend to place in course content that that within your school or an outside organization to address any of the following topics in your selected education classroom. (Circle all that apply.)

	WITHIN SCHOOL	OUTSIDE ORGANIZATION	NONE
Abstinence	1	2	3
Birth Control Methods	1	2	3
Condoms	1	2	3
STDs	1	2	3
HIV/AIDS	1	2	3
Other (Specify _____)	1	2	3

- Q48) The following items refer to skill building activities that could be taught in secondary education. Please indicate whether or not each item is taught in your selected class and whether or not students practice the skill as a part of class.

	TAUGHT	PRACTICED
Examine Personal Values	YES NO	YES NO

-Increase Self-As-Assessment/Build Self-Confidence	YES NO	YES NO
-Examine, Influence on Decisions	YES NO	YES NO
-Monitor Consequences of Decisions	YES NO	YES NO
-Address Peer Norms	YES NO	YES NO
-Examine, Perceive of Progress, Risks	YES NO	YES NO
-Examine Factors of SLL/ILV Risks	YES NO	YES NO
-Identify Concrete Resources	YES NO	YES NO
-Build General Communication Skills	YES NO	YES NO
-Build Assessment Skills	YES NO	YES NO
-Build Action Skills	YES NO	YES NO
-Build Conflict-Management Skills	YES NO	YES NO
-Build Decision-Making Skills	YES NO	YES NO
-Build Planning Goal-Setting Skills	YES NO	YES NO

**Q49** The following are related to teaching strategies that could be used in serving education. Please indicate a bullet or use check marks or initial in your selected class.

#### UTILIZED

-General Rules	YES NO
-Anonymous Question Box	YES NO
-Teacher Lecture	YES NO
-Large Group Discussions	YES NO
-Student Workshops	YES NO
-Journal/Story Writing	YES NO

Cooperative Learning (Small Groups)	5.1.5	NO
Plan, Student Summaries	5.1.8	NO
Individual Materials	5.1.9	NO
Peer Helper Component	5.1.9	NO
Parent/Guardian Involvement	5.1.9	NO
Other _____		

**Part III: Directions:** The following questions address the implementation of sexuality education in your school and your professional background related to sexuality education. To answer each question, please circle the appropriate answer (YES/NO) or write in the appropriate response.

Q10: Approximately how much class is spent teaching about each of the following topics in your selected class?

TIME IN LESSONS/TES

- Abstinence \_\_\_\_\_
- Birth Control (other than condoms/abstinence) \_\_\_\_\_
- Condoms \_\_\_\_\_
- STDs \_\_\_\_\_
- HIV/AIDS \_\_\_\_\_

Q11: How many total hours are spent on sexuality education in your selected class?

\_\_\_\_\_, Hrs./Day

Q12: How close is sexuality education aligned in your school? (Circle all that apply.)

	GRADE			REQUIRED	
1 UNIT IN LIFE MANAGEMENT SKILLS	9	10	11	12	YES NO
2 UNIT IN HEALTH EDUCATION	9	10	11	12	YES NO
3 UNIT IN HOME ECONOMICS	9	10	11	12	YES NO
4 UNIT IN BIOLOGY	9	10	11	12	YES NO
5 UNIT IN PHYSICAL EDUCATION	9	10	11	12	YES NO
6 SEPARATE COURSE	9	10	11	12	YES NO
7 OTHER (specify _____)	9	10	11	12	YES NO



Q3: Is teaching about any of the following topics done in either required classes (1) or in which grades and classes? (Check all that apply.)

	TAUGHT	GRADE	CLASSES
Abstinence	YES NO	9 10 11 12	_____
Birth Control	YES NO	9 10 11 12	_____
Condoms	YES NO	9 10 11 12	_____
STDs	YES NO	9 10 11 12	_____
HIV/AIDS	YES NO	9 10 11 12	_____

Q4: Is a specific, written, abstinence curriculum mandated or suggested for you to use?

- 1 YES - MANDATED
- 2 YES - SUGGESTED
- 3 NO (SKIP TO Q9)
- 4 DON'T KNOW (SKIP TO Q9)

Q4a: If it is mandated or suggested?

- 1 DISTRICT
- 2 SCHOOL
- 3 DON'T KNOW

Q4b: What is the name and publisher of that curriculum?

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Q5: Do you use commercially available curricula for sex education in your classroom?

- 1 YES - NAME/PUBLISHER \_\_\_\_\_
- 2 NO - I create my own materials
- 3 NO - I use other resources. Specify \_\_\_\_\_

Q6: What textbooks (if any) do you use in teaching your sexuality education unit or class? (Please list title, author, and which grades you use it for.)

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_

Q37 How many academic deposits do you hold?

DEGREE \_\_\_\_\_ MAJOR \_\_\_\_\_

DEGREE \_\_\_\_\_ MAJOR \_\_\_\_\_

DEGREE \_\_\_\_\_ IN WORD \_\_\_\_\_

Q38 What subject areas are you certified to teach?

\_\_\_\_\_ years

Q39 How many years have you been teaching?

\_\_\_\_\_ years

Q40 How many years have you been teaching secondary education?

\_\_\_\_\_ years

Q41 Rates the end of the last school year, how often have you attended workshops, conferences, or in-service days and to help you in your teaching of secondary education?

- 1 WEEKLY
- 2 MONTHLY
- 3 SEVERAL TIMES
- 4 ONCE
- 5 NEVER

Q42 Mark on each of the following settings, indicate approximately how many semester HOURS of training you have received. Check the **specifically prepared** for the teaching secondary education.

**EDUCES**

1 UNDERGRADUATE DEGREE PROGRAM \_\_\_\_\_ credit hours

2 GRADUATE DEGREE PROGRAMS \_\_\_\_\_ credit hours

3 WORKSHOPS, SEMINARS, IN-SERVICES, OR OTHER SHORT-TERM (OTHER THAN FORMAL ACADEMIC COURSEWORK) \_\_\_\_\_ hours

Q63 Sex:

- 1 MALE
- 2 FEMALE

Q64 Age:

- |         |         |         |         |         |         |         |         |         |          |          |          |        |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|--------|
| 1 20-24 | 2 25-29 | 3 30-34 | 4 35-39 | 5 40-44 | 6 45-49 | 7 50-54 | 8 55-59 | 9 60-64 | 10 65-69 | 11 70-74 | 12 75-79 | 13 80+ |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|--------|

Q65 Race/ethnicity:

- 1 WHITE
- 2 BLACK
- 3 HISPANIC
- 4 OTHER (please specify \_\_\_\_\_)

Q66 To what extent do you like receiving sexuality education?

- 1 VERY MUCH
- 2 SOMEWHAT
- 3 NEITHER LIKE NOR DISLIKE
- 4 NOT TOO MUCH
- 5 NOT AT ALL

Q67 Do you think it is the appropriate role of the school to teach sexuality education?

- 1 YES (Skip to Q68)
- 2 NO

Q68a. (IF NO) Please explain why not

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Q68b. Is there any additional information you would like to provide that was not covered in other items?

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Thank you for your time and help with this survey.  
If we would like a copy of the results, please print  
your name and address on the enclosed request  
slip and return it with the survey. Please do not  
write the information on the survey itself in order  
to maintain confidentiality.

\*Note: This survey was produced on a 4 1/4 by 3 1/2 inch booklet and questions were  
filled approximately one page.

Cover Letter

On University of Florida Department of Health Sciences Educational Research

March 22, 1998

Dear Colleagues:

The potential for negative consequences related to teenage sexuality are of great concern to many Americans. The high rates of unintended pregnancies, sexually transmitted diseases, and HIV infections all in teens, are among the concerns in our nation. One method of addressing these problems is through school-based sexuality education. Although Florida, like 11 other states requires a state's education there is currently little information on what is actually being taught.

Florida education and health education teachers throughout Florida have been asked to complete this form in order to find out what is being taught and what their needs are in this area. In order to find out the nature and scope of local teacher attitudes and needs regarding sexuality education, it is important that each questionnaire be completed and returned. Your participation is completely voluntary. A copy of the results will be offered as compensation at no cost to you. Further information on this is included on the survey. The survey should take approximately 15 minutes to complete. By participating, you will be making a valuable contribution to addressing the health problems of young people across state.

Your name is assured enough to confidentiality. The questionnaire has an identification number for follow up purposes only. That is not to say check your name off of the mailing list when your questionnaire is returned. Your name will never be placed on the questionnaire.

The results of this study will provide much needed baseline information regarding school based sexuality education. Information about your opinions, needs, and teaching content and methods will help us improve sexuality education in the future and education health.

I would be more than happy to answer any questions you might have. Please write or call the address or telephone number above at (352)335-1000. Thank you for your assistance.

Sincerely,

Marlene Johnson-Jensen, M.H.S.E., C.H.E.S.  
Project Director

**First Follow-up Letter**

disposition letter: 3 1/2 x 5 1/2 (1000) (envelope)

Side 1

Nov 19, 1992

Last week a questionnaire asking information about secondary education in Florida public high schools was mailed to you. Your name was chosen from a list of traditional home economics teachers from the Department of Education.

If you have already completed and returned it to me please accept my sincere thanks. If not please do so today. Because it has been sent to only a small, but representative sample of available education teachers it is extremely important that your like be included in the study. If the results are to accurately represent the opinions of Florida secondary education teachers.

If by some chance you did not receive the questionnaire or it got misplaced please call me collect at (352) 337-1002 and I will get another out to the mail to you today.

Sincerely,

Michelle Johnson Miller, M.H.E., C.H.E.S.  
Project Coordinator

Side 2

Michelle Johnson Miller, M.H.E., C.H.E.S.  
Project Coordinator  
2825 SR-40th Place  
Gainesville, FL 32608

(Respondent's Address)

**Second Follow-up Letter**

(Mail to schools at Florida Department of Education's request; do not forward information to school paper.)

March 24, 1996

Dear Colleagues:

Almost two weeks ago I wrote to two working administrators about a reader education in Florida public high schools. As of today, I have not yet seen all your completed questionnaires.

I have undertaken this study because school-based sexuality education is one method of addressing the high rates of unwanted pregnancy, sexually transmitted diseases, and HIV infections among Florida adolescents. It is necessary to take into account your opinions, needs, and teaching content and methods in order to help improve sexuality education and the health of adolescents in our state.

I am writing to you again because of the significance each questionnaire has to the usefulness of this study. Your name was obtained from a Florida Department of Education list consisting of health and home economics teachers in Florida public schools, grades 9-12. In order for the results of this study to be truly representative of sexuality education/teachers in Florida it is essential that each person on the sample return their questionnaire.

In the event that your questionnaire has been completed, a replacement is enclosed. Your cooperation is greatly appreciated.

Sincerely,

Martha K. Johnson, M.Ed., M.P.H., C.H.S.S.  
Project Director

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## BIOGRAPHICAL SKETCH

I earned my undergraduate degree at the University of Florida in the Fall of 1987. I received a Bachelor of Science degree in psychology in May 1991. In the Spring of 1992, I entered graduate school at the University of Florida. I received a Master of Health Science Education degree with a specialization in health promotion in December 1993. I will be granted a Doctor of Philosophy in health and human performance with an emphasis in health behavior and a minor in human nutrition through the College of Health and Human Performance, Department of Health Science Education in May 1997. I started as a professor at Western Kentucky University in the Department of Public Health in August of 1996.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

  
Graham A. Rambo, Chair  
Professor of Health Science Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

  
E. Virginia Pugh  
Professor of Health Science Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

  
M. David Miller  
Professor of Foundations of Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

  
Sandra F. Seymour  
Associate Professor of Nursing

This dissertation was submitted to the Graduate Faculty of the College of Health and Human Performance and to the Graduate School and was accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

May 1997

  
Dean, College of Health and Human Performance  
  
Dean, Graduate School

# APPENDIX B

## LIST OF THE PARAMETERS FOR THE MODELS DERIVED IN CHAPTER FIVE

By using  $m_f/\eta_{\text{eff}} = \eta_f$  as the indication of injection level at  $\eta_f$ , we fix the parameter in Section 5.2.5 for an exponentially shaped base layer as follows:

$$I_1 = (m_f/\eta_{\text{eff}})(1+\ell_1) + \eta_f/(1+\ell_1) \cdot E_1 + 0 \cdot (m_f) \quad (B.1)$$

$$I_2 = (m_f/\eta_{\text{eff}})(1+\ell_2)(1/\ell_2 + \eta_f/\ell_2 E_1 + 0 \cdot (m_f)) \quad (B.2)$$

$$\text{TIME} = (m_f^2/\eta_{\text{eff}})(1+\ell_1+\ell_2) + \eta_f/(1+\ell_1+\ell_2)(E_1 + (m_f)) \quad (B.3)$$

$$\text{TIME} = (m_f^2/\eta_{\text{eff}})(1/\ell_2)(E_1/\ell_2 + 0 \cdot (m_f)(1/\ell_2 E_1 + \eta_f)) \quad (B.4)$$

$$\text{TIME} = (m_f^2/\eta_{\text{eff}})(1+\ell_2) + 0 \cdot (m_f)/(1+\ell_2)(E_1 + \eta_f) \quad (B.5)$$

$$\text{TIME} = (m_f^2/\eta_{\text{eff}})(1+\ell_2) + 0 \cdot (m_f)/(1+\ell_2)(E_1 + \eta_f) \quad (B.6)$$

$$\text{TIME} = (E_1^2/\eta_{\text{eff}})(1/2)(1/\eta_f)(1+0(1/2)(m_f/\eta_{\text{eff}})(1+\ell_1)) \quad (B.7)$$

$$\text{TIME} = (E_1^2/\eta_{\text{eff}})(1/2)(1/\eta_f)(1+0(1/2)(m_f/\eta_{\text{eff}})(1+\ell_1)) \quad (B.8)$$

$$\text{TIME} = (E_1^2/\eta_{\text{eff}})(m_f/(1+m_f/\eta_{\text{eff}})(1+\ell_1)) \quad (B.9)$$

$$\text{TIME} = (E_1^2/\eta_{\text{eff}})(m_f/(1+m_f/\eta_{\text{eff}})(1+\ell_1)) \quad (B.10)$$

$$I_1 = (m_f/\eta_{\text{eff}})(1+\ell_1) + \eta_f/(1+\ell_1) \cdot E_1 + \eta_f) \quad (B.11)$$

$$I_2 = (m_f/\eta_{\text{eff}})(1+\ell_2)(1/\ell_2 + \eta_f/\ell_2 E_1 + 0 \cdot (m_f)) \quad (B.12)$$

where  $\ell_1$ ,  $\ell_2$ ,  $\ell_3$  and  $\ell_4$  are defined in Appendix 6 for uniform doping



profile or for high injection,  $V_1, V_2, \dots, V_j$  and  $V_k$  become unity. When the parameters in (E.1)-(E.17) are used in the main signal model. Any  $\alpha_j$  in  $\alpha_j$  have to be replaced by  $\delta\alpha_j$ .

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